

HANDBOUND
AT THE



UNIVERSITY OF
TORONTO PRESS

Med.
L

C. H. Wright
Library
55, and 174
7440
I

53

THE
LONDON
MEDICAL AND SURGICAL
JOURNAL;

EXHIBITING
A VIEW OF THE IMPROVEMENTS AND DISCOVERIES
IN THE
VARIOUS BRANCHES OF MEDICAL SCIENCE.

EDITED BY
MICHAEL RYAN, M.D.

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS IN LONDON, &c. &c.
AND
AN ASSOCIATION OF PHYSICIANS AND SURGEONS.

Quærere verum.—HORACE.

VOL. VIII.

297551
3.
34
5

LONDON:
PUBLISHED BY G. HENDERSON, 2, OLD BAILEY,
LUDGATE HILL.
1836.

LONDON
J. HENDERSON, PRINTER, WHITEFRIARS.

London Medical and Surgical Journal.

No. 183.

SATURDAY, AUGUST 1, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE IX.

—
Urethritis and its Metastases—Vaginitis.

SUCH is the most usual progress of urethritis; but do not imagine that such is its necessarily invariable progress, as I, who have seen it in various latitudes, and different modes of life, can testify. In the crowd of armies, in hot climates, I have seen this inflammation followed by serious consequences in men who seemed to brave it, and committed all manner of excesses during the time they were suffering under it. On such occasions I have seen it occupy the penis and prepuce with its utmost fury, produce phymosis and gangrene, occasion the loss of the penis, and even penetrate the interior of the body. At other times, when the patients used a stimulating regimen, and forced the secretory action of the testicles by the abuse of venery, the inflammation passing along the ejaculatory canal, became communicated to the testicles, and occasionally even extended to the vesiculæ seminales, causing their suppuration. This last case is rare; but it is more common, after urethral inflammations thus exasperated, to see the vesiculæ obliterated and sterility ensue. As, however, these inflammatory extensions begin the history of cystitis—the vesiculæ being adherent to the bladder—I shall not proceed further with them at present, but confine myself to the testicle, in which, when the inflammation has reached it, there is first of all injection of the epididymis, and then inflammatory gorging of the gland itself, or orchitis. The phlegmasia proceeds with varied rapidity, according to the violence of the inflammation in the urethra, as also according to the mode of life and treatment. It is a revulsion from that of the urethra,

which it suspends. Mark well this phenomenon: you will find its analogy in many other circumstances, where you may see the prior inflammation leave surfaces far more extensive than is the urethra, while a more acute inflammation is developed elsewhere. Testicular inflammation may be communicated to the scrotum itself, and cause suppuration of it and of the testicles, or even gangrene, especially in hot climates, and in individuals predisposed to inflammation. It is a mere pretence to assign a fixed march and termination to the affection in question. Diseases proceed according to temperaments and latitudes, and so does this—a truth that medical men, who have never left their own clime, have great difficulty in comprehending, and which is explicable by the degrees of irritation. If you refuse to admit it, you are driven to make as many morbid entities as there are individual temperaments, and this again will lead you to nosologies more rich in names than the dictionary of the Academy: you may do this if you please, but you will soon find how ridiculous it is.

In common cases, such as are seen in these climates, orchitis is confined to a swelling of the testicles, with redness of the scrotum, pain of the epididymis, and shining of the skin. Hydrocele is often a consequence of it: indeed, the majority of affections of that kind are the effects of urethritis transferred to the testicles. When there is hydrocele you must not think that the tunica vaginalis of the testicles is always distended like a sac, so as to become transparent; after yielding to a certain extent, it may suppurate, contract adhesions, harden and thicken all around. The testicle surrounded by this thick and rugged sac is then exhibited as a sarcocele, without, however, any destruction of its organization; but at other times it degenerates of itself, after being excessively swelled, and violently distending the tissues. By carefully following the increasing and decreasing progress of these inflammations, these different terminations of them will be recognized.

But these are not all the unfortunate advances of urethritis. When not combatted,

and, *à fortiori*, when treated with ill-timed irritants, it may be propagated to the bladder, to the prostate, and the vesiculæ seminales, being then confounded with cystitis of the neck of the bladder, or go deep into the bladder, giving rise to cystitis of the body of the organ, or to vesical catarrh; and I may anticipate by stating, that the cystitis of the neck and of the body of the bladder have their peculiar characters, which will be hereafter mentioned. Lastly, urethritis may extend along the ureters as far as the kidneys, and occasion nephritis and gravel; this is not effected in a fortnight, but in the course of years, in subjects who have kept it in an exasperated or constantly renewing form for a long period. These disasters are more particularly observable in those following a military career, in those living in a state of celibacy, or leading an unsettled and agitated life; whereas, in a civil condition, when the comforts of home are in possession, and early opportunity of combating inflammation afforded, they are effectually prevented. These nephritic affections, with reference to their etiology, I was very slow in estimating, for they are scarcely at all mentioned in books. It was by the physiological method of viewing disease, the method that obliges me to follow irritation wheresoever it goes, that I obtained certain ideas on the subject; moreover, my station in the midst of great armies, furnished the opportunity of accumulating observations that I could not have procured elsewhere.

The above is not all; urethritis, shortly after its appearance, sometimes suddenly ceases, and is replaced by a visceral phlegmasia, or an articular inflammation. In this case, the knees are mostly swelled and dropsical; of this I have seen several instances, and I particularly remember a professional friend, who, after being kept to his bed a whole year from a similar cause, came to me (I was then abroad), and told me that he had contracted a fresh urethritis; "tomorrow," said he, "I shall have none of it, and the day after my knees will be swelled;" and such was actually the case. I have seen a tolerable number of similar cases, in which the articulations were seized immediately on the cessation of the urethritis. I advised them to introduce for some time a sound, and even to moisten it with tincture of cantharides, in order the better to fix the inflammation; this they did, though persuaded it would not have the desired effect, and, in fact, it had not. At that time, I had not established those connexions between diseases, which cause the formation of the physiological physician; if I had, instead of thus uselessly tormenting my patients and myself, I would have made them give up the urethritis to the mouths of thirty or forty leeches applied to the perineum and root of the penis, before it had time to proceed to the articulations, or I would have applied the same means to the latter, in the event of my failing to preserve them in time.

We have said that a visceral phlegmasia may replace urethritis. I have seen a gastro-enteritis supervene in this case, but have also observed that, on its disappearance, the urethritis returned. The same remark applies to colitis and recto-colitis. I have seen one case, in which the irritation of the urethra seemed to be transported to the lumbar portion of the spinal column. It was that of a person who had used astringent injections: he succeeded in suppressing the clap, but got a lumbago in lieu of it: I recalled the urethritis, and the lumbago disappeared; knowing no other instance of the kind, I will draw no conclusion from it. The lumbago was peculiar, in being propagated along the limbs; but there is nothing strange in this, for irritation may traverse the whole body, and cross it in all directions. Be not astonished at any repetition or transfer of this phenomenon, and, above all, avoid the creed that such cases must be rendered special; most frequently they are determined by an individual predisposition.

Urethritis often passes into a chronic state, especially in lymphatic persons in this climate, who have had several attacks of it, and in whom its intensity is not great. It is then extremely obstinate, and when it has continued beyond three months, it usually becomes confined to one point of the urethra, at which it causes a contraction; for it is a law of the inflammation of the mucous canals, that when it becomes chronic it no longer passes over the surface, but becomes circumscribed and confined to a small point, which point it contracts. This you see in urethritis, and all the phlegmasiæ of the internal canal—an important point, particularly as it refers to the inflammations of the digestive canal.

When urethritis attacks a full-blooded subject, and is not combatted, it goes on, extends to the prepuce, produces phymosis or suppuration in it, the penis swells, and gangrene may be feared. When it advances with rapidity, and produces pain of the root of the penis, a cystitis of the cervix of the bladder may be induced, which may itself prove fatal; this I grant is rare, but still I have seen it in men placed in circumstances when the disease is exhibited in its greatest intensity. If the inflammation tends to a descent to the testicles or to a passage to the joints, you have a right to expect serious consequences. The same is the case when ophthalmia succeeds it, in consequence of inoculation, or by a transfer of the irritation without previous stimulation of the eye; both are possible, and therefore no reliance is to be placed on urethritis that is liable to displacement, or rather on the individuals in whom it has this tendency, for, of itself, it has not this character. Returned to its primary situation, we have only to fear its chronicity or concentration in one point of the organ, a sufficiently disagreeable result to the medical man.

Much may be said of the treatment of

urethritis.' Formerly it was treated by antiphlogistics, emollients, and a few local bleedings; and as other symptoms often appeared subsequently, and were attributed to syphilis, mercury was administered. Now-a-days, the inutility of the latter remedy being generally recognised, the main indication has been to combat the inflammation. Some use astringents and narcotics immediately after the appearance of the disease, and these have succeeded when the inflammation commenced in the navicular fossa and was not intense. Others remarking that these astringent injections acted as reperssives, and fearing their consequences, treated it internally with turpentine, tolu, copaiba, &c. Some employ jalap and violent purgatives, and some cubebs, which is highly stimulating; by which means an irritation of the digestive canal is raised, in order to destroy that of the urethra: and terrible are the effects that sometimes ensue. When the cure is effected it is by the general laws of revulsion; but the mischief that may accompany it when thus induced has led some physicians to treat the disease with emollients and sedatives for thirty or forty days, and then leave it to disappear of itself. Another mode is to drink forty or fifty tumblers of water per diem; I have seen others make large injections of water for the same purpose. All these practices have their success and ill consequences; but what are we to propose? Here I think is a case for electism, and I propose the following treatment. At the commencement of the urethritis we may endeavour to remove it by a local bleeding or emollients, and this sometimes succeeds; if it does not, recourse must be had to astringents combined with narcotics, in injection or lotion; in this manner the inflammation is frequently arrested when not too fierce, and if already diminished by antiphlogistics. If advanced in the urethra we employ oily injections, which sometimes put a stop to it in the first instance: watery opiate injections have a similar effect. It is often stopped in two days; but application should be made to it at once, for if it has already existed seven or eight days, is very inflammatory and attended with dysuria, the above treatment no longer succeeds, and should not even be tried. It only then remains to employ antiphlogistics, general bleedings, local bleedings, ice, local emollients, strict diet, and mucilaginous drinks: in case of dysuria or ischuria, leeches to the penis and perineum succeed well, particularly if seconded by demulcent glisters, into which opium and camphor enter. When chronic, we persist in the antiphlogistic treatment until we find it useless.

On the cessation of urethritis and its transfer to the testicles, the inflammation there must be attacked with leeches and ice; as also in hydrocele, even when all pain has ceased: in this manner I got rid of it in a

person who had had it for two years, and had been once tapped for it. In these cases there is always an obscure and indolent inflammatory movement, which keeps up the disease. If urethritis extends to the kidneys, we treat nephritis, of which we make mention hereafter. If ophthalmia supervenes it must be treated energetically, otherwise the consequences may be rapidly serious. If referred to the joints, it should be attacked with antiphlogistics, although in the case I quoted above I removed the inflammation from them by general bleedings, strict diet, a few doses of mercury within, and mercurial frictions on the knees. When urethritis gives rise to an internal gastro-intestinal phlegmasia, it should be combated by the means usually indicated.

This, I believe, constitutes all that is essential to be said on the treatment of this disease. I repeat the advice I gave, to be chary in the use of internal revulsives, as purgatives, copaiba, and cubebs, and to be ever on your guard to avoid the production of gastritis, which may be excessively acute and complicated with arachnitis, as I have seen it in an unfortunate student, whose sufferings, after taking cubebs, were agonizing, and who had nearly sunk under an attack of encephalitis. If some vigorous people bear this treatment, there are others who cannot, and the prudent physician will have a care not to expose them to consequences that may poison the remainder of their lives, if they be not carried off prematurely. I am often consulted by men of fifty, sixty, and seventy years, who have been Herculeses in their youth, during which they had venereal complaints that, having been treated in the dangerous manner I have stated, left behind them internal affections of the heart, the digestive canal, the bladder, &c.—the more fearful in degree, as the practitioners who had produced them did not know how to treat them; we must not celebrate the momentary cure of disease, we must look to the consequences of it.

Vaginitis.—Inflammation may prevail in one part only of the genital mucous membrane, or in its whole extent, from the vulva to the cervix uteri inclusive: in this last limit we consider it. Its causes are more numerous in the sexual organs of women than men, because there are more functions attached to the vagina than the penis: besides the stimulation of cohabitation, there is labour. Add to this, that the female genital apparatus has more intimate and numerous connexions with the skin, the stomach, the lungs, and with all the important organs of the system: that it is provided with a far greater quantity of blood-vessels and nerves than is the male apparatus: and that, consequently, it exerts a much more powerful influence on all the functions, although puberty does not produce such marked changes, and is not manifested with such impetus in the female as in the male.

The great labia, the vagina, and cervix uteri, are undoubtedly very active mucous surfaces, have an infinity of vessels and nerves, and an erectile and exceedingly inflammable cellular tissue: while every month there is a considerable afflux of blood to them, and considerable excitation of them at each coitus. But more than all this, these parts are subjected to all the violence, pressure, contusion, and laceration of labour. We cannot, therefore, wonder that the genital mucous membrane of women should be more liable to inflammation than the urethra of men; the female urethra is certainly less exposed to inflammation than that of men, because the causes of irritation are less numerous in it, but it is nevertheless affected in a similar manner.

In summary of the causes of vaginitis, we have external violence, abuse of coition, the monthly stimulation of the menses, labour, sympathetic connexion with other irritated organs, especially with the stomach and skin.

In this, as in other parts, inflammation is either acute or chronic, confined to the mucous membrane or extending to the subjacent tissues. Its characters are increased redness and heat, a feeling of burning, fulness, and tension, with an augmented secretion of mucus, pain on passing urine, &c. In the commencement the increased mucous secretion does not exist, and is only manifested upon the disappearance of the first onset of irritation. If the inflammation is violent there is swelling, decrease of the calibre of the vagina, and great difficulty in sexual intercourse. If still more intense, and of a phlegmonous character, as is the fact after violence or violation, it is not confined to the mucous membrane, but extends to the substance of the vagina as far as the uterus, presenting the appearance of the most acute phlegmon, in which the external parts participate, as shewn by their turgescence and approach to suppuration; two or three such cases I have seen among troops.

Chronic vaginitis puts on another appearance; the tension and swelling are diminished: there is a flux of thick and opaque mucous matters: on examination the passage is found unnaturally warm, but less palpably so than in the acute stage. Most commonly the phlegmasia is limited to one region of the vagina, but may occupy them all: it most frequently is situated about the cervix, in which event it is confined to the mucous membrane, and produces a discharge called whites.

As regards propagation, it has already been described under the acute stage, for phlegmon is an actual propagation. It may tend towards the uterus, the bladder, the clitoris, the lymphatic ganglions of the groin and surrounding parts—may seize on the rectum, and simultaneously occupy it, and the vagina, and the neighbouring cellu-

lar tissue, though this last is not peculiar to vaginitis, but rather occurs in inflammation of the rectum. Never lose sight of these propagations; the evil of classical works to me appears to be the limitation of the descriptions of inflammation to parts which it very frequently exceeds; it should rather be represented as never in a state of repose, but both able and tending to communicate itself in all directions.

The progress of vaginitis differs according to its intensity: if phlegmonous, it may go on to suppuration and abscess; non-phlegmonous, it goes on like a catarrh. When chronic, it sometimes happens that the inflammation fixes in some follicles, and becomes aphthous, ulcerous, and corrosive: this, however, is rare. For the most part it presents a mass of varieties, that have long embarrassed practitioners. It may be excited by all the causes of superexcitation, change place, and cease suddenly. Cold is the most frequent cause, by suppressing the action of the skin, of the increase of whites, without inducing pain in the majority of instances. Vehement stimulation of the stomach, dyspepsia, the use of exciting fluids, may cause a sudden suppression of the discharge; and so true is this, that practitioners have employed tonics, astringents, and strong wines internally, to obtain suppression, and they have obtained it when the disease was only superficial, and only consisted in a habit of superexcitation, without any true inflammation. The surplus of stimulus inflicted on the stomach then operates as a favourable revulsion, and the discharge, which is only the product of a secretory irritation, yields: such cases are recognised by the absence of pain in the vagina, and a state of debility, rather than superexcitation. When women are under the influence of grief, exposed to cold and ill clothed, the vaginal mucosities may flow in abundance, and give rise to an unnatural condition, that forces the organ to secrete and become a factitious emunctory, like the kidneys or other secretory organs, or like that of the bronchi, which secrete without inflammation, after having suffered repeated catarrhs. Thus limited to the secretory parts and non-inflammatory, vaginitis may augment under the influence of debilitating causes, and diminish or altogether cease on an increase of action in another organ, as when, for instance, the stomach is stimulated by a more generous nutriment, or the lungs respire a purer and more refreshing atmosphere. You may find numbers of females who live in Paris having this discharge, and who are rid of it almost directly after they get beyond the barriers.

The case of stricture, as a consequence of chronic vaginitis, is less common than as that of urethritis. But very many females have a local and permanent point of irritation, some at the cervix uteri, others in the urethra and the anterior sub-pubian part,

where the organ is swelled, whilst the bladder is simultaneously affected, and others, again, in the posterior and inferior parietes corresponding to the rectum; these three cases I have certainly ascertained to exist, and there may be others. When you have to treat a vaginal discharge, you should first be sure whether you have to deal with a habit of mucous supersecretion, or with one of these irritative points, and you distinguish them thus: when the disease depends on a fixed irritation there is no complete remission: tonics do not cure, but rather exasperate it: manual examination discloses the diseased point, and the speculum gives opportunity of seeing it with greater precision, and determining the degree of alteration.

The progress of this chronic stage will be readily comprehended from what precedes. Simple whites may be for a long time supported by women, without any fear from their duration; they get quite well when the menses cease—a fact to which you should attend. These fluxes that go on without apparent phlegmasia, have been considered as passive, yet the period of their cure is that when the womb loses its activity. They must depend on a certain kind of irritation; for, if the organ whence they proceed is in connexion with the head by the influence of sorrow, with the stomach by excess in diet, with the skin by alternations of heat and cold, and with the lungs by various qualities of the atmosphere, as is observed, so as to leave no doubt of the variations of mucous secretion in consequence of such influences—it is impossible to deny that the diseased parts possess more activity than they ought to have; for an inactive organ has no sensible connexions, is not moved in concert with others, and remains indifferent to the disturbances of the system. Look at those fluxes that take place in the intervals of the menses, and appear altogether passive; they disappear at the onset of the menses, and are not mixed with the blood: the fact is, that another mode of irritation takes the place of that which kept them up.

I am altogether unable to assign any limit to chronic vaginitis; all I can say is, that when it is purely mucous, and without disorganization in any point, it goes away on the cessation of the menses, or may be readily cured: that when it depends on a permanent inflammation of the cervix uteri, as this always tends to penetrate into the nervoso-sanguineous erectile tissue of the part, it does not stop unless it be combatted, and may end in metritis; that when it approaches the rectum and bladder, it may produce thereabout, in the acute stage, phlegmonous, abscesses, indurations, and, in the chronic stage, scirrhus, cancer, melanosis, &c. I have treated women who had, at the same time, an inflammation of the vagina, of the bladder, and the rectum, and

who could neither pass urine nor fæces; these parts were red and indurated. They were treated with antiphlogistics, and the inflammation yielded; subsequently, under the influence of stimulants, or of causes which they concealed, it recommenced, until the secretions being suppressed, an inflammation of the whole vascular apparatus took its start from this focus of phlegmasia, and proved fatal. These instances I have seen, and such it is that authorize me in always exhibiting inflammations to you as mutually dependant on each other; you will never get me to describe a disease as isolated: I shall ever show its connexions with others, for I cannot imagine systematic medicine without it. Women never die from the mere vaginal affection, even when induration and ulcers of the cervix uteri supervene. If the inflammation remains confined to that part, they may live for a long time, and it must be propagated to the central viscera to kill them. Those who have ulceration of the cervix uteri, begin by feeling the uterus more weighty, and by being constipated, because defecation is attended with pain; they have a burning sensation, upon which ensue the phenomena of dissemination, or the sympathies, the febrile state, the derangement of the digestive passages; phlegmasia are developed in the abdomen or chest in those so disposed, especially in cold countries. The lungs become gorged and filled with tubercles; diarrhœa replaces the constipation, and the patients sink in the acute febrile state, or die consumptive; the absorption of the pus sometimes adds to the destructive causes.

Regarding the differences dependant on individualities, it is clear that women of the lymphatic constitution, whose menses have ceased, or are about ceasing, have more to fear from tubercular affections, and that the sanguineous are more exposed to purely inflammatory diseases; that, in youth, they who have an affection of the cervix uteri and whites at the same time, in whom you only find, by manual examination, a sensible and smooth tumefaction, and whose menses are otherwise healthy, are only suffering from a curable inflammatory complaint; whereas if you find a body that is uneven and hard to the touch, and the speculum shows you that it is thickened, yellowish and degenerated, you may assert that the disease is incurable, and the female lost, inasmuch as the chronic irritation has produced tubercular, lardaceous, encephaloid, or other alterations; this is often the case when you are called to examine a woman of forty-five to fifty-five years of age, whose menses no longer flow. Such are the foundations of your prognosis, and also of the pathological anatomy of the disease.

Acute vaginitis may be subdued by local bleedings; general ones are rarely called for, unless there is visceral complication and congestion. Emollient injections do not

succeed in the first instance. It is for the most part erroneous to persist in injecting into hollow organs in a state of inflammation, of pain and resistance to distension; this applies to the rectum as well as the vagina. But when the inflammation is diminished, such injections, cold or scarcely tepid, may prove useful. Rest must be enjoined. If there is heat, as is the case in women of irritable temperament, baths, and emollient and sedative topical applications should be prescribed, cooling glysters, &c.

If it is chronic, the treatment is more difficult: here I shall refer to my three former distinctions;—1. If it is only a simple mucous irritation, spread equally over the surface, and you ascertain this by the suppleness, absence of heat, and plumpness of the parts touched by the finger, by the absence of swelling of the cervix, it is only whites, such as are met with most frequently in lymphatic females. Then examine the digestive canal: if it is inactive, give stimulants, generous food, and astringent preparations. To guard against relapse, make your patient wear flannel: you never can obtain equal benefit from a vehement stimulation of the stomach, by sudorifics, as from the constant application of flannel to the skin, and you may injure the stomach by forcing periodical sweatings. When the discharge depends on the quality of the atmosphere, and the patient is affected with it in town and free from it in the country, recommend the latter habitat, with frictions of the skin, and temperance in, or abstinence from, coition. 2. If you have to combat a predominant point of irritation, the matter is more serious. Should this point be in the urethra, or along the rectum, you have a cystitis and rectitis to treat at once. But the cervix uteri is the most common seat of obstinate whites, and this affection exhibits various indications according to its degree and nature. The cervix being only superficially hardened, and not much swelled, and without great increase of heat, the complaint is not serious, even if some small excoriations are added. This kind it is that may be treated as strictures of the urethra are in men, and cauterization is necessary. But when the ulceration is not seated in a yielding tissue, but in the midst of deep induration, the case is important, and you should pursue your examination further. If, on raising the uterus with the finger, the hand being applied over the hypogastrium, you feel the uterus heavier and larger, I do not think you ought to apply caustics: I have never seen it succeed. In extirpation I have no faith, when the induration is deep, smooth, lardaceous, and appears on the cessation of the menses; if then practised you behold the consequences in scirrhus, metritis, or peritonitis. I have certified the evil effects of caustics and the knife on all occasions when the inflammation and induration ex-

tend beyond the cervix. My profession of faith here is, the antiphlogistic treatment in the first instance; if it does not succeed, and the excoriations on the cervix are only small, slightly indurated, and red, cauterization may cure, and ablation also: but the latter is useless, or should not be undertaken until you have found the insufficiency of the former, and the limited alteration of the cervix; for if you do not cut into sound parts, you operate in vain, and only accelerate the progress of the disease, and the exit of your patient. In short, you must here, as in every other affection, proportion the means to the extent, the duration and standing of the disease, and the constitution of the patient. 3. For the incurable cases, in which there are deep ulcerations and excavations, you can neither attack them with caustic nor operation; you have only the palliative treatment. I find that I have not mentioned leeches to the cervix; they are very useful when the disease is only superficial inflammatory, and the excoriations slight, but not when there is deep ulceration, a lardaceous state of the part, and ulceration. Even in these cases they may afford some relief; but, on the other hand, may cause serious hæmorrhage. At all events they are safe in the commencement. Some say their bites ulcerate, and lead the way to the destructive process; but this is an exaggeration—ablation and cauterization often produce worse consequences. To return to the incurably ulcerated cases: if the viscera are affected, they must be treated, but not always, with equal energy. I suppose a young, robust person affected with irritation of the uterus, to which is added a gastritis, pneumonia, &c.; such a case you will do well to combat with general bleedings and leeches: but should it happen in a lymphatic woman long afflicted, and in whom you have reason to suspect an advanced induration and degeneration, of what use will it be to exhaust her with bleeding, when cough supervenes, or with leeches when the stomach is deranged? There is a *medecine de capitulation* which I distinguish from the curative, and which the physician employs when he finds himself worsted. He is bold so long as he knows it is possible the disease may yield: but when no hope remains, he becomes cautious; and, being no longer able to subdue, he moderates or soothes the disease. Then it is that emollients, narcotics, and mild diet should form the sole treatment, and not an active medication: at the same time, attention should be paid to the *morale*, and all disturbing causes avoided.

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho;*

Session 1834-35.

LECTURE XLV.

*Diseases of the Intestinal Tube developed after
Birth—Intestinal Indigestion—Invagination
of the Intestines—Enteritis—Follicular—
with Disorganization of Tissue—Entralgia
—Spasms of the Intestines—White Ramol-
lissement of the Gastro-intestinal Mucous
Membrane.*

GENTLEMEN—The intestinal canal is liable to irritation, spasm, and pain, independently of inflammation, in the same way as the stomach. We meet with intestinal indigestion, invagination, griping and spasm, or entralgia. These disorders of function may occur in any part of the intestinal tube, independently of inflammation; but when long continued, they may induce the last disease, when the usual symptoms of enteritis will present themselves. Improper food, and exposure to cold, are the commonest causes of intestinal derangement. The gripings and colics of infants are generally to be ascribed to these causes. The symptoms of these disorders are worthy of attention.

Intestinal Indigestion.—A vast number of infants at the breast suffer from diarrhoea, become pale, blanched, and emaciated; they gradually perish, and on examining their bodies, we cannot find a single sign of inflammation. The infants thus affected die from want of nourishment, they really die of hunger, their stomach and intestinal tube do not digest the milk which they suck or drink. Let us examine the symptoms and causes of this intestinal indigestion. The symptoms are progressive emaciation, paleness of the countenance, continual hunger of the infant, who seizes the nipple with extraordinary avidity whenever it is applied to the breast. There is a discharge of mucosities from the bowels, often mixed with coagulated, or curdled milk. The infant may perish before it is greatly emaciated, and we generally find, on examination of the intestinal tube after death, a general redness of a part or the whole of the canal; or it may be inflamed, ulcerated, or sottened. M. Billard states, that in 1826 he examined the bodies of fifteen infants, aged from fifteen to thirty days, who were affected with chronic diarrhoea without inflammation. In eight of these, he found no lesion; there was a general decoloration of the integuments of the intestinal tube, and all the

organs were exsanguine. These infants never ceased to vomit and to have purging during life; and in some the abdomen was tympanitic. In others there was a greenish matter in the colon, somewhat similar to meconium. The decoloration is a species of ramollissement. In some cases there were patches of congestion, so that the surface of the intestinal tube was not entirely white. This decoloration is supposed to result from inanition or want of aliment, and not from inflammation. It closely resembles the decoloration of the stomach and intestines of those who have died of hunger, as described in my own and other works on Medical Jurisprudence. This is also confirmed by a striking fact afforded by the Foundling Hospital of Paris. In that establishment, a vast number of infants perish from want of nourishment. The infants are generally suckled by sedentary nurses, who have been delivered so long, that their milk is unfit for the very young infants committed to their charge. They also change the infant every week, and give their breast indiscriminately to every infant presented to them. They pay no attention to the hours for suckling, do not consider the quantity of milk necessary for infants of different ages and constitutions; so that there is too little or too much given, the infants are disordered, and very often perish. Reflecting on this practice, on the carelessness and inhumanity of strangers towards unfortunate infants left at Foundling Hospitals, there are many statesmen and physiologists who have arrived at the conclusion, that these institutions do more harm than good, and that they encourage immorality and greatly increase the mortality of mankind. I shall not stop to examine the accuracy of this conclusion; but I cannot help observing on the baneful effects of errors in the physical education of infants, and how these are diminished by maternal lactation and solicitude. On a former occasion, I adduced unanswerable arguments to prove that every woman in health is morally bound to nurse and manage her infant. But to pursue the pathology of the intestinal tube: I have to direct your attention to some other diseases of this important portion of the animal economy.

Inflammation of the Intestines—Enteritis.—The mucous membrane of the intestines is subject to the same inflammations as that of the stomach, œsophagus, and mouth, which I have already described. It is right to state that one of the varieties of enteritis, namely, that with alteration of secretion, is very rare, according to the observations of that unequalled infantile pathologist, M. Billard.

This author has described enteritis during intra-uterine life, in some examples accompanied by excrescences or vegetations on the duodenum, and in chronic colitis. Such inflammations are, however more frequent after birth.

Inflammation of the Intestinal Tube developed after Birth.—Inflammations of the intestinal canal may be divided into four varieties: 1. Erythematous enteritis; 2. Enteritis with alteration of secretion (muguet); 3. Follicular enteritis; 4. Enteritis with disorganization of tissue.

1. *Erythematous Enteritis.*—There is scarcely any difference between passive congestion of the intestinal tube and erythematous inflammation. The first is the precursor of the second. In the latter there is ramiform or capilliform injection, there are red patches of a greater or less extent, situated in the most dependent, or in any other portion of the intestinal tube, accompanied by a tumefaction, or greater or less friability of the mucous membrane. The disease may attack infants of one day old, or at a more advanced period of life. In forty cases detailed by Billard, the infants were from one day old to a year. In thirty there was diarrhœa, with yellow liquid motions: in six, the drinks were vomited; in twenty-five there was tympanitis; in four the motions were natural; in six there was no diarrhœa; in five there was an erythematous redness about the anus, caused by the irritation of the alvine motions; in all, the skin was remarkably dry and hot; in four only was the pulse febrile, and these infants were from five to twelve months old; and in twenty-five there was a particular expression of countenance, characteristic of severe suffering. In some there was profuse intestinal hæmorrhage, and the blood exhaled from different points of the tube. One infant vomited blood, and also passed it by stool. The disease may also be complicated with pneumonia or cerebritis, or with intense inflammation of the brain, its membranes, or with that of the lungs.

On examining the bodies anatomically, we find intense redness, a brownish coloration, various spots or red lines in different parts of the intestinal tube, more especially in the ileum and colon.

This form of enteritis is generally complicated with gastritis, and the symptoms of both diseases are well marked. These are constant vomiting, heat of the abdomen, pain on pressure, the lower extremities drawn up, the bowels very much confined or very much relaxed, the motions depraved. It is, however, consoling to know, that the treatment of enteritis, or gastro-enteritis, is the same.

2. *Enteritis with Alteration of Secretion, or Muguet of the Intestines.*—This has been rarely observed in the ileum and colon, and is of very rare occurrence. The treatment is the same as for the other varieties of enteritis.

3. *Follicular Enteritis.*—The follicular apparatus of the intestinal tube may be, like that of the stomach, the seat of the disease. It consists in a number of small isolated glands in the first two thirds of the small intestines, which are formed into groups in different parts of this canal. These follicles

are isolated in the larger intestines—the cœcum, colon, and rectum. They may be more or less apparent, though, in some infants, they are scarcely discernible.

They undergo changes that are not inflammatory. At the period of dentition, their function of secretion may be very much increased; they may be enlarged and more prominent than usual; but, nevertheless, they are not red, inflamed, or ulcerated. M. Billard observed twelve cases of this description.

There were three of the affected infants aged from eight days to three weeks, two of two months, seven from nine months to a year, and these were commencing their first dentition. Ten of these had a profuse thin diarrhœa, which was in direct relation with the development of the follicles, and the increase of their secretion. The greater number of the infants were teething, so that we perceive a remarkable connexion between the appearance of the first teeth and the development of the follicles in the intestines. It is easy to explain this physiologically. The follicular apparatus is intended to assist digestion, and its development progresses with that of the teeth. Nature has, therefore, fixed the same period for the development of all parts of the digestive apparatus; and it is for this reason that the salivary glands increase considerably, and secrete an abundance of saliva at the commencement of dentition. This coincidence in the normal development of the teeth, salivary glands, and follicles in the intestines, and the direct sympathy between all parts of the digestive tube, enable us to explain the relation that exists between dentition, salivation, or drivelling, and the watery diarrhœa, which so often affects young infants during dentition. Thus there is a functional and morbid sympathy, as well as a coincidence of development. M. Billard is of opinion, that it is the excitability of the muciparous glands which causes the augmentation of their secretion, and that they are in an intermediate condition between the normal and inflammatory; and, therefore, that attention ought to be paid to the regimen of infants affected with this thin watery diarrhœa. Emollient drinks, as milk, barley water, gum arabic dissolved in water, will be administered with benefit in this species of diarrhœa. This disease causes debility and emaciation in a few hours, and sometimes even death. In some cases there will be thirty or forty watery motions in twenty-four hours, and unless powerful astringents are frequently and speedily exhibited, the disease will prove fatal. The treatment will be fully described under the head of Diarrhœa; but I may now observe, that leeches and fomentations to the abdomen are necessary, notwithstanding the apparent debility of the infant. This plan is the more necessary, as it is often difficult to distinguish follicular from the other varieties of enteritis during life in young infants. In those about

the seventh or tenth month, the disease produces those symptoms which MM. Serres and Petit have described as characteristic of entero-mesenteric fever, and M. Bretonneau has termed *dol-inenterite*.

Inflammation of the follicular apparatus in adults causes all the symptoms of typhous and adynamic fever; but this is not the case in young infants, though with those that are more advanced in life.

In fine, this variety of inflammation may become chronic, but rarely in infants at the breast. It also supervenes in mesenteric disease, and in tubercles in the lungs.

4. *Enteritis, with Disorganization of Tissue.*—The commonest disorganizations of the intestines are inflammatory ramollissement, and gangrene.

When the mucous membrane has been a long time inflamed, it acquires a degree of friability which enables us to separate it with the nail, and it loses all the characters of its structure. It falls off in a soft reddish mass when we attempt to separate it from the subjacent tissue. There are no distinctive symptoms of this disease, and it cannot be distinguished from other varieties of enteritis during life.

There is another kind of ramollissement, which is termed white, to distinguish it from the inflammatory. It is observed in those infants which are badly fed, who become pale, blanched, and emaciated before death. In these the mucous membrane of the stomach and intestines is found pale and discoloured, similar to the external integuments. The membrane is, however, softened, as in the inflammatory ramollissement, though of a white colour.

Gangrene of the intestines is most commonly observed near the ileo-cæcal valve. It appears as a dark spot, which speedily sloughs and forms a complete perforation of the intestine, which allows the fecal matter to pass into the cavity of the abdomen. This rarely happens in infants at the breast, but is frequently observed in those of a more advanced age. There are no symptoms except the ordinary ones of enteritis, by which we can distinguish intestinal gangrene. It is also very difficult to distinguish, in young infants at the breast, between inflammation in the different portions of the intestines, though M. Billard has attempted the diagnosis, and termed inflammation of the duodenum and the rest of the small intestines, enteritis or ileitis; and that of the large intestines he designates colitis. He gives a report of several cases, which deserves careful consideration. In eighty cases of inflammation of the intestinal tube, there were thirty of entero-colitis, thirty-six of enteritis, and four of colitis. In the thirty cases of entero-colitis, there were twenty in which the infants were affected with diarrhœa, the motions being yellow or green; in the ten others there was no purging. In all there was tumefaction of the abdomen,

and pain on pressure. There was vomiting of a yellow fluid in twelve, though there was no gastritis. In all there was erythematic redness about the anus, caused by the contact of the alvine motions. The tongue was red and dry, the skin very hot and arid, but the pulse was not raised, and sometimes was feeble.

In thirty-six cases of inflammation of the small intestines there was vomiting of drink or fecal matter in twenty, and in fifteen the disease was situated near the ileo-cæcal valve. The tumefaction of the valve offered an obstruction to the passage of the fecal matter, and gave rise to the vomiting of it. The abdomen was always tumefied in the commencement or course of the disease. In twenty-four there was diarrhœa with greenish motions like meconium, the tongue was red, the skin hot, and the pulse slightly affected.

In the fourteen cases of colitis, there was diarrhœa, the swelling of the abdomen was more or less considerable; six of the infants vomited, and very generally the integuments were cold and livid. The pulse was scarcely affected. It is remarkable that the pulse is greatly accelerated in enteritis of adults, and there is also intense fever.

Most of the eighty infants whose cases were examined, were aged from one day to six months; and a few from six months to a year old.

It follows, from the facts thus adduced, that it is extremely difficult to form a diagnosis in enteritis of infants at the breast; though it appears that rapid tumefaction of the abdomen, purging and vomiting were present in enteritis or ileitis, whilst in colitis purging alone without tumefaction of the abdomen is more frequent.

The complication of gastritis and enteritis is extremely common in new-born infants, and the symptoms already enumerated enable us to distinguish this complication. These, however, differ from those of the adult, as already stated.

Symptoms.—The symptoms of diseases of the digestive organs in nascent or new-born infants are almost always local; they seldom excite constitutional disturbance or fever, as in adults, unless when the infants advance in age. Let us endeavour to analyse the symptoms, so as to distinguish the inflammatory diseases of the intestines. There is vomiting in enteritis of a yellow matter, but it does not happen on taking drinks. Diarrhœa is almost always present, and it is generally watery or serous. This is caused by an augmentation of secretion in the follicular apparatus. Tympanites and tension of the abdomen, with pain on pressure, are the distinctive and almost constant signs of enteritis. If we add to these the redness and dryness of the tongue, the heat of the skin at first, and afterwards its coldness and lividity—in fine, the erythema of the anus and surrounding skin, we have the

most common symptoms of gastro-enteritis, of enteritis, and entero-colitis. When these diseases become chronic, the infant emaciates, and its bones become prominent, the countenance is changed, the appetite is lost, there is a desire for cold drinks, the features are sharpened, and the infant picks its nose and lips.

Some infants are peevish and feverish for several days, or even three or more weeks, having the preceding symptoms, which are ascribed by some practitioners to teething, or worms; and the disease is termed infantile remittent fever by authors. It is most common in children from one to seven years of age, and is of almost daily occurrence. You observe numerous examples of it at the Free Hospital, and at the Western Dispensary. Let us investigate the causes.

Causes.—The vascularity of the intestinal canal, before and at birth, is very great, and is readily increased by any derangement in the circulation in the chest or abdomen; and also by the administration of aliment which is too hot, exciting, and difficult of digestion. Such are the causes of abdominal inflammation in new-born and young infants. These causes are in almost constant operation, especially the errors in diet, and therefore their effects must be as constant. Thence it is, that of all the diseases of infants, those of the digestive organs are the most numerous and fatal. It is on this account that I so minutely described the alimentation or food of infants and children; and it is for the same reason that maternal lactation and care are strongly advised by physicians.

Treatment.—The indications of treatment are drawn from the preceding history. We have seen that sanguineous congestion is the primary cause of inflammation of the digestive tube. This is to be diminished by warm bathing or fomentations, with two or three leeches applied to the abdomen or round the anus. The latter part is preferred by continental practitioners, as leeches to it more directly relieve the abdominal vessels, on account of the connexion between them and those of the lower bowel, than if applied on the abdomen. We thus relieve the congested state of the mucous membrane of the alimentary canal, by leeches, and the warm bath, which determines blood to all parts of the body, and consequently diminishes it in that part in which it is in excess, which is the case in all congestions and inflammations. We next direct our attention to the inflamed surface. We order abstinence from food, or at least diminish the quantity, and therefore advise that the infant ought to be but rarely applied to the breast. We prescribe for it mucilaginous drinks or barley water, sugar and water, mucilage or gum arabic dissolved in water, &c. But as the infant cannot bear the want of nourishment for any length of time, we order it starch clysters, with chicken or beef broth, and two or three drops of lau-

danum. There is great caution required in using opiates in clysters, as infants are readily narcotised. A clyster composed of two ounces of starch, with one of broth, and two or three drops of laudanum, will be sufficiently powerful for infants under a year old. When the infant is older, our treatment should be more energetic. Many practitioners exhibit aperients, and almost entirely depend upon them in gastro-enteritis; but they should be used with caution.

Those who have not studied the pathology of infantile diseases are too much in the habit of prescribing for names and not for actual disease; and we have ample proof of this, by referring to the first and last edition of Underwood's work, in which we find such diseases as inward fits, watery gripes, &c.—mere words without a pathological meaning.

Besides the inflammations now described, the intestines are liable to spasms, which cause griping, choleric, intussusception or invagination, and many other diseases. These I shall now proceed to notice, in the order of their frequency.

The modern pathologist will find many of them symptoms of morbid lesions; but as they are described by the most popular writers and lecturers on diseases of children, as diseases, I shall follow their example, more especially, as I have given the pathology of the digestive tube according to the latest and best authorities. It cannot be expected that the public or the profession will abandon the errors of popular writers, and therefore we must notice them.

Retention of the Meconium.—The mucosity contained in the intestines of the infant during pregnancy is mixed with bile, as proved by chemical analysis, and is of a dark green or black colour. This fluid is probably intended to prevent the obliteration of the intestinal canal, which it lubricates. In a short time after birth, as soon as respiration is fully established, the pressure of the diaphragm and abdominal muscles on the intestines excites their peristaltic motion, which expels their contents—the meconium or dark green fluid. When the infant is subjected to strong uterine contractions during parturition, or when it comes into the world by the breech or feet, the meconium, or first alvine defecation takes place, sometimes in the uterus or vagina, or immediately after birth.

When this fluid remains for any length of time in the bowels of a new-born infant, its thinner parts are absorbed, and the remainder becomes thick and tenacious. The chief cause of its retention after birth is supposed to be spasm of the sphincter ani. Tissot maintained that this spasm was excited by the action of the air on the skin. The tenacity or viscosity of the meconium, or its adherence to the intestine, may prevent or impede its evacuation, when the bowels are not stimulated by the colostrum, or first milk of the mother. In fine, we

observe that infants who are naturally feeble, who suffer in the birth, and who want proper care afterwards, void the meconium with great difficulty.

If the mother has breast-milk, and applies the infant in a short time after birth, her first milk, called colostrum, will purge it, and no aperient is necessary. It is held by some writers that new-born infants do not require purgatives, no more than the young of other animals, and may be left to nature. The inferior animals live more in accordance with nature's dictates than mankind, who are involved in artificial conditions. It is true that the meconium is often expelled by nature, but when it is retained, or when the infant is spoon-fed, or is suckled by a mother whose milk is not well elaborated, or by a nurse whose milk is several weeks or months old, an aperient is necessary. When the meconium is not voided in a few hours after birth, though the breast milk has been given, or when there is no milk, the infant is griped and deprived of sleep, it is then necessary to employ some mild aperient, as almond oil, castor oil, manna, honey, treacle, soft sugar, syrup of violets, or syrup of chicory, which is composed of rhubarb. Dr. Harris recommended a watery infusion of rhubarb, properly sweetened, in preference to the common oils and syrups in general use. When these fail, syrup of buckthorn is advised, but this is seldom kept, and compound tincture of aloes sweetened, is usually substituted for it. Dr. Hamilton, of Edinburgh, increased the dose of syrup of buckthorn to an ounce, and discovered that it was the aloetic tincture which had been substituted for it. This dose would be too large in most cases, but some will require it. Dr. Underwood prescribed the following medicines in the course of thirty-six hours, for an infant of thirteen days of age, which was constipated from birth: "two ounces of common infusion of senna; two drachms of Rochelle salts, four grains of jalap, and a grain of calomel; besides purging clysters and the use of the warm bath. The next day the child took four grains of ipecacuanha at two doses, and forty drops of vinum antimonii, at four times, (in the course of an hour) without any effect; and at another period, six drachms of castor oil, besides several doses of manna." When the preceding medicines fail, it will be advisable to alternate them with repeated doses of calomel, which may amount to two, three, or four grains in obstinate cases. But in the majority of instances, a grain of this medicine, with two of aromatic powder, and some honey or sugar, followed in two or three hours by the administration of a teaspoonful of castor oil, will efficiently act on the bowels.

Purgatives may be varied according to circumstances. An infant may be naturally strong or robust, feeble or delicate, sensitive

or nervous. The same medicine is therefore improper in all cases. The good sense of the practitioner, and his knowledge of therapeutics, will guide him in the selection.

Constipation of New-born Infants.—When an infant is constipated, its stomach becomes hard and distended with wind or gas; it cries, draws up its lower limbs towards the abdomen, or is constantly kicking, is deprived of sleep, or screams in its sleep; it is griped and affected with colic, or enteralgia, which may induce convulsions. These symptoms may be speedily followed by inflammation of the bowels, and death. It is therefore necessary to open the bowels as soon as possible, by some of the medicines mentioned for the expulsion of the meconium, and if these fail, by clysters, or suppositories of soap, or cocoa butter. The griping, or "pinching of the bowels," as it is popularly termed, is caused by colic, spasm, or cramp, and this extends to the sphincter ani, or that muscle whose use is to close the anus. To remove this spasm, warm flannel should be applied to the abdomen, or gentle friction made all over the stomach and bowels with the hand made warm; and if these fail, a warm bath will be advisable, as it often acts most efficiently as an antispasmodic and laxative. It was strongly recommended by Hoffman, Tissot, Capuron, and others, and very generally employed in all countries.

Confinement of the bowels and griping of the infants are caused by the breast milk, or artificial food; and the nurse should be particular in her diet, and follow those precepts already mentioned for her guidance. If artificial food be the cause, it should be changed.

Constipation is either constitutional or accidental. If the mother or father should be constipated, so will the infant which most resembles either of them. Some infants are, therefore, constitutionally predisposed to confinement of the bowels, and these very often thrive most remarkably. It is unadvisable, according to Dr. Underwood, to attempt to counteract this habit of body, when the child appears perfectly healthful. He attended many families whose infants were habitually costive, all of whom he states, grew up strong and healthy. He mentions this fact, not to induce practitioners to shew less attention to the regularity of the bowels of children, but that no alarm need be entertained, in cases in which infants pass several days without a motion.

I cannot bear testimony to the accuracy of the preceding statement, and must remark, that I have very often succeeded of late in correcting habitual costiveness by alterative doses of mercury, such as the one-twentieth of a grain of calomel with two grains of rhubarb, one of aromatic powder, and five of sugar, administered every night or alternate night, and continued for three or four weeks. This plan is also successful

in the constipation of adults, as is amply proved by the cases related by Dr. Wilson Philip, in his work on *Minute Doses of Mercury*, and by my own repeated observation. I am now attending a lady, aged twenty-six years, the mother of two children, who has suffered from obstinate constipation for the last ten years. The infant of this lady was of a constipated habit, though it took one of the following powders two or three times a week, and the dose was increased in proportion to its age and strength.

Rx. Hydrargyri submur., gr. j;

Sachari purificati, 3j;

Pulveris rhei, ʒij;

Pulv. cinnam., comp. ʒss.

Tere intime et in chartulas xx divide, quarum capiat unam alternis noctibus.

The constipation continued until the infant was a year and a half old, when its bowels acted every day, and the motion was of a healthy colour. This and many other cases have convinced me of the efficacy of this mode of practice; and I am very much disposed to doubt that infants who are constipated for four or six days at a time, and continue in this state until the age of childhood or puberty, can be in perfect health. In addition to the powders just mentioned, we may use other purgatives; and, it appears to me, that Underwood and other writers have erred in excluding mercurial preparations in their prescriptions for children. The late Dr. Joseph Clarke, of Dublin, very strongly advised half a grain of calomel to be given every night or every second night to infants when troubled with green motions and griping; and he observed that, in the course of a week or two, the stools became natural, and that it was rarely necessary to exceed four or five grains (*Mem. of the Royal Irish Acad.* vol. vi.) Others give two grains of mercurial pill. Dr. Heberden, in his *Epitome of Infantile Diseases*, very judiciously remarks—"Costiveness is not to be desired, nor yet to be dreaded. Too lax bowels indicate a weak, and too confined a strong constitution. The mean is to be observed, if possible; and if any infant should exceed thirty-six hours without a motion, medicine must then be employed." This is an excellent precept for the management of the bowels of infants, but, like all general rules, is liable to exceptions, as the cases recorded by Dr. Underwood amply prove. The physiology of digestion teaches us that the ingestion of food is necessary several times a day, and that the excrementitious parts ought to be expelled daily at least, and not accumulated in the bowels. If these remedies be so efficacious for adults, they cannot be useless, and, I am fully convinced, are not injurious in cases of children. If one of the powders given at night does not operate, we may exhibit a drachm or two of manna, of syrup of senna (the infusion sweetened), or of roses; and any one of these may be mixed with tea, milk, or other drink. In

obstinate cases, from five to thirty drops of tincture of jalap, compound tincture of senna, or compound tincture of aloes may be added. I have repeatedly given a drachm of each of these tinctures in three ounces of water, sweetened with sugar, and in repeated doses, to infants under six months old. Manna and magnesia were once very favourite remedies, and are still very extensively employed. A small piece of manna, about the size of an almond, will be sufficient for an infant during the first year of its age. There is an advantage with this medicine, that children of two or three years old will eat it with avidity. A few grains of magnesia, the calcined or common, or as much as will be raised on the handle of a teaspoon, may be mixed with milk or tea, and sweetened with manna instead of sugar, and given to infants of one or two years old. Parents often give them senna tea, or infusion, with milk and sugar to disguise it. This is a safe opening medicine, but some grated nutmeg, cinnamon, or ginger, should be added to senna leaves when put into the tea-pot or other vessel, before the water is added, to prevent griping. Rhubarb is not a fit purgative for infants of a costive habit, either alone or combined with calomel or magnesia, as it tends to confine the bowels. It is, however, a valuable purgative so combined, when there is a tendency to diarrhoea or bowel complaint. It is apt to gripe, unless nutmeg, cinnamon, or ginger powder be added to it. Castor oil is one of the best and safest purgatives, but its effect is transitory. The alterative powders already mentioned should be given before its administration. A quarter of a grain of ipecacuanha, or three grains of aloes, have been advised. If these medicines fail, we should have recourse to clysters or lavements. A wine-glassful of barley-water, thin starch, or beef-tea, with a tea-spoonful of castor oil, or from five to twenty grains of socotorine aloes, and if this fail, the same quantity of compound tincture of senna, will in general succeed. Suppositories, or dry clysters, are also useful, though too seldom employed in this country. These are made of a slip of paper, or piece of linen twisted, moistened with oil, and introduced into the bowel. If these fail, a small piece of Castile soap, red beet, mallow root, parsley stalk, or common candle may be used.

But the use of purgatives, clysters, or suppositories may, in most cases of habitual costiveness of infants, be superseded by rubbing the stomach and bowels with the warm hand or a piece of flannel, for ten or fifteen minutes, whenever an evacuation or motion is desired.

The continental practitioners employ frictions, with purgative tinctures over the abdomen; and Dr. Merriman has found the following, used for five or ten minutes, effectual: compound soap liniment, one ounce; compound tincture of aloes, half an ounce.

There is abundant evidence, that purga-

tives, tonics, mercurials, and other medicines, produce their usual effects when rubbed on the skin, or, as the ancients termed this method, the *iatreptic*. Modern experiments have, however, determined, that medicines act more energetically when the cuticle or epiderm has been removed by a blister; and the efficacy of this plan has given origin to a new treatment, which is much used on the continent, and denominated the *endermic* method, which means the action of medicines through the derm or skin.

Some nervous infants suffer from tenesmus or needing, and make frequent ineffectual attempts to evacuate the bowels. They suffer so much pain on passing a motion, that they frequently cry, and are sometimes thrown into convulsions. This pain being frequently repeated, the child is afraid to go to stool, the lower bowel becomes torpid, and costiveness is induced. In some cases the suffering is so great, that the child can only be induced to evacuate the bowels when half asleep. A proper dose of the sedative solution of opium, hyoscyamus, or morphia, is the best remedy in such cases, regulating the bowels, and encouraging regular attempts after breakfast, or at a certain hour, to procure a motion. Ascarides or small thread-worms in the lower bowels often excite tenesmus or frequent desire to go to stool, and ultimately give rise to this form of constipation.

There is another kind of constipation caused by intussusception or invagination of the intestine.

Intussusception — Invagination. — This disease consists in a certain part of the bowel affected with spasm, being forced into a portion of the tube below or above it, which obstructs, irritates, and finally inflames this portion of the intestinal tube, and causes obstinate costiveness which defies purgatives, excites vomiting of fecal or bilious matter, and produces mucous diarrhœa, tinged with blood. The causes of intussusception are severe diarrhœa, drastic purgatives, which produce much griping, as senna leaves boiled in water, without the addition of ginger or cinnamon, offensive matter in the bowels, worms, flatulence, or the gases secreted in the alimentary canal.

This disease often causes inflammation of the invaginated portion of the bowel, which speedily mortifies, and is expelled by the rectum. A portion of intestine, which measured several inches, has been expelled in this manner in the adult. But this seldom, if ever, occurs in the infant. In this case, the obstructed bowel rarely yields to purgatives, though an enema or clyster may bring away some fecal matter from the large intestines below the obstructed part. As the disease continues, it excites several other invaginations. Dr. Burns found forty-seven in one case, and his brother, Mr. Allan Burns, met with fifty examples, which caused fatal

diarrhœa. The abdomen rapidly swells and hardens, often in an irregular manner, so that the convolutions of the intestines are perceptible externally. Vomiting and colic supervene, and, in the adult, there is fixed pain in the abdomen; sometimes there are mucous, bilious, and stercoraceous vomitings, and the contents of the bowels above the obstructed part are expelled by the mouth. After a short time, prostration of strength or great weakness comes on, the limbs become cold, convulsions or coma supervene, and death speedily ensues. On dissection, we find several invaginations ascending and descending into the intestine, and sometimes the strangulation is produced by bands or false membranes, the results of inflammation existing between the affected parts, omentum and convolutions of the bowels. The intestine is compressed or strangulated by these bands; in other instances, the intestine is twisted or contorted on itself, forming a knot, which is rendered firmer or more strained, as the adjoining portion of the bowel increases in size from the distention caused by the evolution of gas, or as it is erroneously termed, flatulence, or by the drink or clysters administered to the patient. The infant is relieved by the expulsion of this gas. Invagination may occur unaccompanied by constipation. I have often observed such cases; and, on dissection, numerous invaginations, both upwards and downwards, existed in the intestinal tube.

The treatment of this disease is seldom successful. We endeavour to establish the function of the bowels by aperients and clysters, frictions on the abdomen, warm baths, and according to some, by emetics. This disease, which is of frequent occurrence in young infants, very generally proves fatal. It is not decided whether the intestinal tube of infants is liable to *ileus* or *niserere*, though I see no reason why it should be exempt.

—o—

DISEASES OF THE GENITO-URINARY ORGANS.

(Continued from page 792.)

Strictures of the Urethra. — The commonest result of urethritis is stricture, or obstruction in the urethra, which is a most annoying, and in the end, a most dangerous disease.

The term stricture has been applied to a narrowing of a certain portion of the urethra, of a greater or less extent, induced by inflammation; and as gonorrhœa is the most violent and frequent inflammation of the urethra, it is the most common cause of contraction or narrowing of that canal. This inflammation having lasted in an acute state for a longer or shorter period, becomes chronic, fixes itself upon a certain point of the canal, and gives rise to thickening, indurations, accidental tissues, and adhe-

sions, which obstruct more or less completely the flow of urine. Thickening of the mucous membrane causes a great number of contractions; induration of the cellular tissue, and the surrounding corpus spongiosum, accidental tissues, false membranes and adhesions, which form bands or bridles across the canal, also gives rise to caruncles and carnosities.

The causes of stricture are therefore engorgement of the mucous tissue, induration, adhesions of the parietes of the canal succeeding to ulceration of the mucous membrane, and inducing a more or less perfect septum, which authors have denominated valvular or bridle stricture; carnosities, or excrescences projecting into the canal, callous ulcers, situated in the lacunæ of the urethra, tumefaction of the verumontanum, enlargement and fungosity of the prostate gland, and lastly, concretion in this gland or some part of the urethra.

Various classifications have been given of strictures. In this country it is generally considered that there are three species of stricture: the permanent, the spasmodic, and the inflammatory.

The permanent stricture is caused by thickening of the urethra, induced by chronic inflammation. The spasmodic arises either from contraction of the muscles surrounding the urethra, or according to some, from that of the urethra itself; and the inflammatory is caused by an extravasation of an adhesive matter between the corpus spongiosum and surface of the urethra.

The permanent stricture may be divided into six varieties: that caused by septum, bridle, or valve; the callous, or irregular, in which a greater or less extent of the urethra is found contracted, and the sub-mucous and spongy tissues are indurated; the ulcerative with carnosities and vegetations; the varicose, which depends upon the enlargement of the veins of the sub-mucous cellular tissue, according to Ducamp one of the best French writers on the subject. Stricture is also caused by engorgement succeeding acute inflammation, by induration succeeding chronic inflammation of the parietes, by membranous septa, or bridles, or bands; and lastly, by carnosities. According to Sir Astley Cooper, gonorrhœa is the commonest cause of stricture in ninety-nine cases out of a hundred; though he admits it may arise from external injury. It is often caused by excessive venery, and also by masturbation.

It may be seated in any part of the urethra, from the orifice to the vesical extremity of the prostatic portion; it is generally seated, however, about four or five inches from the orifice, and next in frequency, in that portion of the canal near to the bladder. It was said by Sæmmering, that it is most common in the posterior part of the urethra, in the vicinity of the bulb, sometimes in front of this, but never in the pros-

tatic portion of the canal. This last assertion has been disproved by Sir Astley Cooper and Lallemand, who have described cases in point. Mr. Phillips contends that, although strictures may be seated in any portion of the urethra, at least of any part of the spongy canal, the point of junction between the membranous and bulbous portions is most commonly affected.

Symptoms.—The symptoms of stricture are, retention of a few drops of urine in the urethra, after the whole quantity is supposed to have been discharged; so that when the penis has been returned within the dress, the shirt is slightly wetted; there is a more frequent desire to pass urine than in health; a person in health evacuates the bladder three or four times in twenty-four hours, but much more frequently when stricture is present. In the latter case, there is often an urgent desire to evacuate the bladder, but when an attempt is made, there is an inability and a degree of straining experienced for a few seconds before the act can be completed. The stream of urine is diminished in size, is spiral, crooked, forked, and sometimes escapes in the form of a thin sheath, which towards the end of the flow of urine becomes subdivided into several jets. Sometimes the urine is voided drop by drop, and it often insensibly escapes in this way, causing humidity and coldness of the scrotum. In some cases there is a slight or considerable discharge of ropy mucus, especially in aged persons, but more generally resembling gleet. When the urine is discharged, it is transparent as usual, but after it has cooled, it becomes turbid or yellow, and the mucus falls to the bottom of the vessel. This arises from inflammation of the mucous coat of the bladder; and when the disease is violent, the urine becomes quite white. When ulceration follows, the urine becomes bloody, and mixed with pus. In those cases in which suppuration takes place, the urine will be more or less loaded with pus, the patient will have severe rigors, and hectic symptoms. It is right to mention that slight shivering fits are frequently experienced in the milder forms of stricture. The most common symptoms of stricture then, are, more or less difficulty of voiding urine; a frequent, incomplete, and painful emission of it, the jet gradually becoming smaller, bifurcated, spiral, or like a thin sheath, or otherwise mis-shapen; entire retention, or incontinence of urine; retention of the semen during coition; heat and pain in the canal; blennorrhagic discharge, which is exasperated after erection or coition; and rigors more or less severe*. These symp-

* The shiverings are often so great as to be mistaken for ague. We have known a gentleman who was supposed to have laboured under intermittent fever for ten years, whose disease was stricture. He was greatly astonished on hearing our opinion.

toms will vary in different subjects, and some of them may be absent. The stricture may come on rapidly, or very gradually, during a period of three, five, or more years, without manifesting all its characteristic symptoms.

The patient notices at first that he has occasion to micturate more frequently than usual; and that he is obliged to get up three or four times during the night to pass his urine. He occupies more time in micturition, though he voids but a small quantity on each occasion. The jet becomes progressively smaller, and less strong than usual; there is sometimes a slight scalding, heat, titillation or itching, during its passage, and a feeling of weight in the perinæum, with a sensation as if there was a necessity to evacuate the bowels. According as the obstruction in the canal increases, the patient occupies more time in emptying the bladder, and requires to make stronger efforts for that purpose than formerly. If, after having accomplished this object, he makes further attempts, he procures a further evacuation. Should he not obey the call of nature, when the bladder contains urine, he experiences a dull pain in the groins, and above the pubes, which may be accompanied by considerable nausea. When the disease has advanced, the difficulty may become so considerable, and the jet so small, that the urine, instead of being ejected to some distance, falls drop by drop between the legs. In some cases, the patient may be obliged to make strong efforts, and be a minute or two before he can pass a single drop of urine, and he may occupy ten minutes before he can relieve himself. In extremely bad cases, he strains very violently, the respiration is considerably impeded, the face becomes flushed, perspiration suddenly appears upon the forehead, the whole body trembles, and the fæces are sometimes expelled at the same time with the urine. After he supposes that the bladder is evacuated, the urine comes away in drops, so that there is a degree of incontinence. This is caused in two ways by stricture. When there is much obstruction, a portion of urine remains behind the stricture, and escapes involuntarily after the straining efforts to empty the bladder have ceased; or, in bad cases, the bladder becomes very much distended, the sphincter loses its power, the stricture performs its function, but of course imperfectly, and the result will be incontinence of urine. This

He was soon after attacked with perinæal abscess, urinous infiltration of the scrotum, succeeded by gangrene, and life was saved with much difficulty. The patient is now in good health. We have known another gentleman whose shiverings misled some of the first surgeons in a northern city, and whose disease was stricture of the urethra.—*Ed.*

will be more urgent whenever the patient walks, stands, coughs, laughs, or evacuates the bowels.

The constant discharge of the urine excites irritation and inflammation in the urethra, accompanied by a mucous discharge, which may be thin, or so viscid as to plug up the urethra, and cause retention of urine. In such case the patient strains violently in endeavouring to micturate, and sometimes expels the plug; or, if this do not happen, the introduction of an instrument may dislodge it. In some instances there is a considerable quantity of common orropy mucus discharged, especially in old persons, or in chronic stricture. This is very much increased by coition, as the irritation produced during this act increases the urethritis, however slight it may be.

When stricture has rendered the urethra nearly impervious, it gives rise to great suffering and danger. The secretion of urine proceeds incessantly, the bladder becomes distended, there is a constant desire to evacuate it, accompanied by agonizing pain, extending to the kidneys, loins, abdominal and pelvic viscera, external genitals, and lower extremities.

In some instances rupture of the bladder, inflammation of the ureters, kidneys, and peritoneum, may be excited, or the urine may escape among the abdominal viscera into the cellular membrane of the perineum, scrotum, abdominal parietes, and thighs, causing inflammation, suppuration, or gangrene. Bad stricture of the urethra may induce disease of the heart, lungs, brain, or abdomen, as hernia, in consequence of the difficulty of breathing, induced by the violent and frequent efforts made to empty the bladder. I have known a gentleman who, from great straining, brought on abscess in the perinæum, and finally pulmonary consumption. He was obliged to strain for a minute or two on attempting to evacuate the bladder; and as the neck of that organ was very nearly impervious, and the power of seminal emission nearly gone, he gave up all idea of marriage, refused to submit to treatment, and became a confirmed drunkard, which speedily hastened his death.

But the most frequent diseases induced by it are those of the genito-urinary apparatus, and the vicinal organs.

When we examine the bodies of those who lose their lives by urethral obstruction, or its consequences, we generally find the following results:—Stricture in some part of the urethra, but most frequently anterior to the bulb, at the junction of this part with the corpus spongiosum. The next seat of the disease is in the membranous portion, or that part of the canal between the bulb and prostate gland; the next is in the prostate itself, according to Sir A. Cooper. All the urethra behind or posterior to the stricture, is very much en-

larged, and more or less inflamed and sometimes ulcerated, and the coats of the bladder are very much thickened, and assume a columnar appearance, on account of the repeated and powerful contractions of the muscular fibres to evacuate the organ. The ureters are generally enlarged to a considerable size; in some instances as thick as the finger or intestine, and even ten times the usual size, as they are compelled to perform in some measure the function of the bladder. The kidneys are generally diseased, the glandular part absorbed, the organ so distended with urine as, in some cases, to fill the whole abdomen.

There are various specimens of enlarged ureters in the different museums, and some good illustrations of them in Mr. Cross's work on the Formation, Constituents, and Extraction of Urinary Calculus, lately published. This writer also delineates a vast number of morbid appearances of the prostate gland, bladder, and kidneys, caused by stricture of the urethra, contraction of the neck of the bladder, disease of the prostate, calculus in the bladder, ureters, and kidneys.

The prostate gland is usually diseased, frequently enlarged, its ducts dilated, and abscesses and fistulæ are often found in it. In some cases the urethra will ulcerate behind the stricture, and the urine will become extravasated into the surrounding cellular tissue, forming urinary abscess or fistulæ, or mortification may destroy the patient, unless the perineal tumour is opened or burst. In such cases a low fever, resembling typhus, supervenes; coma and death speedily ensue. In bad cases of stricture, the general health suffers very much, the patient becomes emaciated, nervous, feeble, his spirits are greatly depressed, his intellectual powers are often impaired, his countenance is ghastly and anxious, he becomes intemperate and affected with stupor, and a premature death puts an end to his existence. Urinary abscesses occur in the perineum, and contain an extremely fetid, sloughy matter; and when they burst, the urine escapes through them. These fistulæ may exist in any part of the perineum, may extend to the scrotum, and even to the back part of the thigh*. The urine escapes through these fistulæ, and they become lined by a tissue very much resembling mucous membrane. It is a singular fact, that false passages in the urethra are also lined in the same manner, as may be seen in several specimens in the museum of the Royal College of Surgeons. In some cases the urethra is contracted or strictured for three or four inches†; in others, there is a part of the canal encircled as if surrounded

by a packthread, tape, or ribbon, or there may be a membranous band or bridle running from one side of the urethra to the other, the base of which will be broad and formed by induration of the mucous membrane, the result of repeated inflammation. Again, we may find an induration projecting laterally, superiorly, or inferiorly into the canal; and its structure may, in some cases, approach to cartilage. There may be one or several of these indurations, and the contractions are generally very irregular. We sometimes observe a stricture at a certain point of the urethra, as if a packthread were drawn tightly around the canal; but this is comparatively of rare occurrence. In general we find a projection on the inferior, superior, or lateral surface of the urethra; and sometimes two of these, so as to approach each other. Again, the stricture may be one, two, three, or more inches in length. Caruncles, or carnosities, may be detected, but these are of rare occurrence.

—o—

Reviews.

—

Lectures on Diseases of the Lungs and Heart.

By Thomas Davies, M.D. Physician to the Infirmary for Asthma and Consumption, Assistant Physician to, and Lecturer on the Theory and Practice of Medicine at the London Hospital. Svo. pp. 512. London: Longman and Co. 1835.

THE distinguished author of this work has studied the diseases of which he treats, under the great Laennec, and has given ample proofs, in the production before us, of his consummate knowledge of the nature and treatment of diseases of the lungs and heart.

It is gratifying to peruse the work of one who thoroughly understands his subject, as the reader will be instructed in every page. Dr. Davies stands among the first stethoscopists in this metropolis, and is extensively consulted by his contemporaries. He does not arrogate to himself any superior knowledge, like others that might be mentioned, nor does he pretend to more success in his practice than his contemporaries. Like all honourable and educated members of our profession, he is content with describing the important subjects which he proposes to elucidate, without pretending to a greater quantum of knowledge than the profession, either living or dead, though he is fairly entitled to the first rank of auscultators. He speaks of his predecessors and contempora-

* Stafford on Strictures. Second edition. 1829. p. 39.

† Sir C. Bell's Letters on the Urethra.

ries with candour and proper feeling, and awards every one his due.

He modestly apologizes for publishing his work when Dr. Forbes' translation of the imperishable production of the illustrious Laennec, and Dr. Hope's valuable monograph were before the profession. But he might have justly added, that he had presented the facts in both, with many others, to his readers.

Dr. Davies is, however, by no means a mere compiler; his original views are numerous and important, and he has combined them with those of preceding authors. His work is a valuable addition to the records of medicine. It is a systematic treatise which does no more admit of review than a dictionary. Suffice to state, that it contains all that is known concerning the value of Percussion and Auscultation, as applied to the investigation of the diseases of the respiratory organs and heart. It is a graphic work, which will hold a high position in our medical literature. It evinces the fullest information and experience on the part of the author. It will be a work of reference and authority. The author is entitled to great credit for the manner in which it is executed.

—o—

Practical Examinations on the Immediate Treatment of the Emergencies that occur in Surgery and Midwifery; systematically arranged. Intended to serve as an Exercise to the Student, and a brief Work of Reference for the General Practitioner, Part ii. By W. S. Oke, M.D. 8vo. pp. 163. London: Longman and Co. 1835.

THIS little work is what it professes to be, one of reference to the student and practitioner. It contains a full account of the pathology and treatment of dislocations and fractures, chiefly compiled from the works of Sir Astley Cooper and Mr. Guthrie. The author has given the whole of the opinions and practice of these eminent surgeons in a condensed form. His work will therefore be valuable to those who do not, or cannot possess the more expensive productions of the two distinguished surgeons whose names we have just mentioned. It is a concise, yet comprehensive treatise on dislocations and fractures. It ought to be in the possession

of all students and medical practitioners.

—o—

A Treatise on Pulmonary Consumption; comprehending an Inquiry into the Causes, Nature, Prevention, and Treatment of Tuberculous and Scrofulous Diseases in general. By James Clark, M.D. F.R.S. 8vo. p. 399. London: Sherwood & Co.

DR. JAMES CLARK is already honourably known to the profession as a distinguished practical physician, and a well-informed and judicious writer. The work before us is calculated to add to his reputation, and has the advantage of successfully blending the views of the best French pathologists with those of our own countrymen—an object frequently held out, but seldom attained, by English authors; for it is one thing to interlard a treatise with references or quotations sought out for the occasion, and another to imbue it with the general information derived from an extensive and well-digested course of reading.

The present work is based on the article *Tubercular Phthisis*, written by Dr. Clark for the *Cyclopædia of Practical Medicine*, several additions and alterations having been made, which may be considered as improvements on what was originally excellent.

In the introduction our author observes, that the researches of the French pathologists, however accurate and useful in their relation to the morbid anatomy of phthisis, "have tended to keep up the idea that consumption is a local disease referable to a local cause; and thus the investigation of the constitutional origin of tubercles—by far the most important part of the subject—has been neglected." The illustration of the peculiar diathesis which gives rise to tubercles, is a principal object of Dr. Clark's publication, on some parts of which we now proceed to comment very briefly.

Chap. 1. treats of *Tuberculous Cachexia*, the term by which our author has before designated the scrofulous diathesis, in his work on "The Influence of Climate." The general peculiarities of the strumous constitution are sufficiently familiar; but Dr. Clark is of opinion that a primary affection of the digestive organs, on which most of them depend, has not attracted sufficient attention.

"The dyspepsia of the tuberculous constitution has peculiar characters by which it may generally be known. These have been fully and accurately described by Dr. Todd, under the name of *Strumous Dyspepsia*; a condition of the digestive organs which is not only present in the hereditary strumous constitution, but is capable, I believe, of generating this constitution, and of leading ultimately to tuberculous cachexia. In Dr. Todd's opinion, 'it presents a more characteristic feature of this habit of body than any physiognomical portrait which has yet been drawn of it. In this respect it is more to be depended on than either the fine skin, the clear, delicate complexion, the light hair, large blue eyes, and dull sclerotica of one variety; or the foul, dull, swarthy-coloured skin, the sallow complexion and swollen countenance, the dark hair and tumid lip of the other. It betokens, indeed, little familiarity with scrofula to connect it with any particular temperament, for it belongs to all temperaments—to the sanguine as well as the phlegmatic, to the nervous as well as the melancholic, and to all their varieties and combinations. But upon whatever temperament the disordered habit which we call scrofula may engraft itself, we venture to say that this form of dyspepsia will also there be found; and, therefore, being constantly present with it, preceding and accompanying the various symptoms which issue from it, it would be contrary to all reason to refuse to it an important share in the development of this disordered habit, and in the production of the local affections which have hitherto too much engrossed the attention, to the exclusion of a proper consideration of the constitutional disease.' I have great pleasure and satisfaction in citing Dr. Todd's observations, because they are in accordance with my own, and because they cannot, in my opinion, be too strongly pressed upon the consideration of the profession; so much importance do I attach to this disordered state of the digestive organs as a source of tuberculous disease.

"I shall now notice the leading symptoms by which this affection of the digestive organs is characterized—more especially in children, in whom it is so important to attend to it. The tongue is redder than natural, especially towards the extremity and along the margins; the anterior part is thickly spotted with small red points of a still brighter colour, the central portion being more or less furred, in general according to the duration of the disorder; sometimes the tongue is covered with a dirty whitish fur, through which the red papillæ project; in which case the central part of the tongue is often dry and of a brownish colour in the morning. There is generally some thirst: the appetite is variable, more frequently craving than deficient, seldom natural; and the breath is fetid. The bowels are gene-

rally confined, though occasionally they are too loose; the evacuations are always unnatural, generally of a pale, greyish colour, of the consistence and appearance of moist clay; and they are often mixed with mucus and partially digested food. The urine is often turbid, sometimes high-coloured, and at other times too abundant and pale. The skin is generally harsh and dry, or subject to cold perspirations, particularly the hands and feet, which are habitually cold; copious partial night-sweats are common. The sleep is seldom sound—the child is restless, and talks in his sleep, or grinds his teeth.

"When this disordered state has continued for some time, the complexion loses its natural colour, and the face has a pasty, faded aspect; the child is languid, disinclined for exercise or play, and generally fretful; a train of secondary disorders also soon appears, as a consequence of the irritation of the digestive organs. The internal fauces become full and red, inflammatory sore-throats are common, and the tonsils often become permanently enlarged. The nose is generally dry, or discharges thick mucus in large quantity; and epistaxis occasionally occurs. The eye-lids are subject to chronic inflammation; and eruptions behind the ears and on the scalp, or other parts, are very frequent. Copious discharges of mucus, sometimes mixed with blood, take place from the bowels, and from the bronchial membrane; and are indeed common from all the mucous surfaces. The brain and spinal marrow frequently become the seat of secondary irritation, and hydrocephalus, epilepsy, and chorea, or paralysis may be the consequence; but the most frequent and most important of all the consequences of this disordered state of the digestive organs is tuberculous cachexia."

Chap. 2 is on *Tuberculous Disease of the Lungs, or Pulmonary Consumption properly so called*. The first section contains a good practical description of the disease, divided, according to the usage of most writers, into three stages. The second section is on *the more marked varieties of consumption*. To our author's description of these we would particularly direct the attention of the junior practitioner; they are forms of disease which continually occur in practice, but several of which will appear quite new to those who have derived their ideas of pulmonary consumption from systematic works on medicine.

Five of the less frequent forms of consumption are here noticed, viz.: Acute or Rapid Consumption, Febrile Consumption, Chronic Consumption, Latent Consumption, Infantile Consumption. We make no apology

for extracting entire the description of *febrile consumption*, which, though new to nosology under this designation, is an affection which must occasionally have presented itself to every experienced practitioner.

"Febrile Consumption."—This form differs materially in its symptoms from the more common acute varieties which have just been noticed, as well as from the usual form of the disease; even the morbid appearances discovered after death are somewhat peculiar. The degree of fever by which it is usually ushered in and attended during its whole course, is one of its most remarkable features, and the one from which I have ventured to denominate it *febrile consumption*.

"Its attack is generally sudden, occurring in a state of apparent health, after exposure to cold, or even without any very evident cause. I say apparent health, because I believe that the disease only occurs in persons of a tuberculous diathesis—the most marked cases which have come under my notice having occurred in families, several members of which had already fallen victims to the disease in its usual form.

"It commences with shivering, followed by heat of skin, quick pulse, and the other symptoms of fever, which often continue for several days with little or no indications of pulmonary disease; in some cases putting on the characters of bilious, and in others of catarrhal fever, for either of which it may be mistaken.

"Cough generally soon appears, and hurried breathing is one of the most remarkable symptoms. The cough speedily becomes more frequent, and is soon accompanied by some expectoration, which is at first colourless, afterwards assumes a yellowish or greenish hue, and is occasionally streaked with blood; but it has rarely the characters of the expectoration of the advanced stage of ordinary consumption. Pain of one or both sides frequently occurs, and occasionally there is diarrhœa. The fever, in the meanwhile, continues without abatement, and is so much out of proportion to the other symptoms of pulmonary affection, as to render the true character of the disease liable to be overlooked. In the course of from three to six or seven weeks the patient sinks.

"As the case advances, its nature generally becomes more evident; but still the symptoms are often so little marked as to render it doubtful whether the disease is not acute bronchitis or pneumonia; and when either of these affections complicates the tuberculous disease, the diagnosis becomes extremely difficult. In some cases auscultation assists us materially. The upper part of the chest often gives a dull sound on percussion, although the tuberculous matter is less frequently confined to the summit of the lungs in this than in the other forms; a circumstance which constitutes one of its patholo-

gical characters. The whole of one side of the lungs and even a large portion of both appears to be attacked in some cases almost at the same time, giving rise to a dull sound on percussion, and bronchial respiration. Under such circumstances it is difficult to distinguish the disease from pneumonia. The negative symptoms assist us: we have neither the crepitant rhonchus which precedes the dull sound and bronchial respiration, nor the characteristic sputa of pneumonia. When, on the other hand, this sudden deposition of tuberculous matter does not take place in the pulmonary tissue, but occurs in the minute terminations of the bronchi and in the air-cells to a great extent, the case resembles acute bronchitis more than pneumonia. Here again we derive assistance from the negative symptoms; the bronchial sputa are wanting, and the whole progress of the disease differs from that of bronchitis; there is also, for the most part, an extreme rapidity of breathing, which is not observed in any other pulmonary affection. But there are cases respecting the real nature of which the most attentive observer, aided by all our means of diagnosis, may be in doubt.

"The morbid appearances of this form have been well described by M. Louis and Dr. Carswell. They are of two kinds: in one class of cases they consist of that form of tubercle denominated grey granulations, deposited in great numbers in the lungs, the surrounding pulmonary tissue being infiltrated with serosity, which, as Dr. Carswell remarks, greatly augments the dyspnoea, and may prove fatal by inducing asphyxia. In other cases the pulmonary tissue is completely infiltrated with tuberculous matter, a large portion of the lungs being converted into a mass of cheese-like substance. Louis considers this form of tuberculous deposit, when it exists to a considerable extent, peculiar to acute phthisis. Tuberculous cavities are found in some instances, but they are generally of small size, are only partially evacuated, and have no lining membrane, which is commonly the case in cavities of longer duration.

"Notwithstanding the rapidity of febrile consumption, it is often attended with those morbid affections of other organs which accompany the disease in its usual form, such as ulceration of the intestines, larynx, and trachea, and the diseased states of the mucous membrane of the stomach and the liver; showing that it is true to the general character of phthisis, although differing from it in its external features.

"The diagnosis in the early stage of this variety is often attended with difficulty. The sudden attack of fever, with rapid respiration and some cough, occurring in a person of tuberculous constitution, should excite suspicion; and the continuance of the symptoms despite the remedies employed, together with the absence of those symptoms which charac-

terise the common acute diseases of the chest, will greatly assist us. Percussion and auscultation will also lend their aid in many cases.

"Febrile phthisis appears most frequently to attack young persons, although the subject of one of Louis's cases was in his forty-sixth year; it also occasionally supervenes upon the common form. In this case the breathing becomes very difficult and rapid; still the chest preserves its resonance, the respiratory sound being accompanied with a slight rhonchus. On examination after death, a large quantity of grey granulations is found diffused over a great part of the lungs, in addition to the tuberculous disease existing previously to the acute attack.

"It is proper to remark, that the disease which I have described has been considered as a form of pneumonia, the grey granulations being regarded by Andral as the result of inflammation of the air-cells: and on this view there will be equal propriety in considering the rapid tuberculous infiltration of the lungs the result of inflammation in a tuberculous subject. I do not think it of much consequence to dispute this point. I believe that inflammation in a tuberculous constitution may give rise to the deposition of tuberculous matter in place of coagulable lymph, which in healthy subjects is its natural product; and thus inflammation may be one of the immediate causes of tuberculous disease."

Under the head of *latent consumption*, we find the following remarks on what has been called *dyspeptic phthisis*.

"The complication of dyspepsia with tuberculous disease is not an infrequent cause of the latter being overlooked, the dyspeptic symptoms being more evident than the phthisical. The aspect of the patient in such cases is pale and unhealthy; he gets thinner and weaker; the food which he takes affords him neither nourishment nor strength; and yet he has no evident ailment but what is referable to the deranged state of the digestive organs. There may be no cough, no fever nor expectoration to excite fears for his safety; while at the same time tuberculous disease of the lungs is gradually extending in these organs. This is the form of the disease which has been termed *dyspeptic phthisis*; a term which I consider decidedly objectionable, if used to designate a species of phthisis differing from the tuberculous; because, however prominent may be the dyspeptic symptoms, and however obscure the tuberculous disease of the lungs, the latter is the cause of death. While I admit to the fullest extent the necessity of attending to the state of the digestive organs, I must object to the pathological view which limits the attention of the practitioner to the dyspeptic or hepatic affections, neglecting other and equally essential parts of the treatment. I do not know such a disease

as dyspeptic phthisis as constituting a particular species; but I am well acquainted with the chronic form of tuberculous consumption which is long preceded and accompanied by dyspeptic symptoms. Indeed, tuberculous consumption rarely occurs in the middle periods of life without this complication; but the deranged condition of the digestive organs is, in these cases, very often a more consequence of a long pre-existing state of venous congestion of the abdominal viscera; and which, if not corrected by more efficient measures than those generally adopted to relieve the dyspeptic symptoms, may terminate in pulmonary consumption.

"The profession is highly indebted to Dr. Philip for directing its attention to the congestive state of the hepatic system, and pointing out some of the most effectual means of obviating it; but I cannot admit that his dyspeptic phthisis differs in its nature from tuberculous consumption."

In the justice of these remarks we entirely concur.

Diabetes and diarrhæa are alluded to as affections complicating and disguising phthisis. Among diseases of this kind, *hysteria* is perhaps not unworthy of notice. As a complication of phthisis, it may occasion many anomalous symptoms, and render the diagnosis obscure; while in a few instances we have known this protean disorder to mimic so closely some of the more prominent symptoms of consumption, as pain in the chest, with dyspnoea, obstinate cough, and expectoration, even accompanied with excitement of the pulse, hectic flushes, &c.—that considerable attention has been necessary to detect the real nature of the case.

Our author's observations on infantile consumption are worthy of an attentive perusal. Phthisis was formerly little heard of as a disease of childhood; the recent researches of morbid anatomists, however, have demonstrated that it is by no means unfrequent, even in infancy.

Consumption at an early period of life differs somewhat, both in its symptoms and the seat of the tubercular deposition, from the same disease in adults.

"The cough is very often of a character different from that which accompanies consumption in persons of mature age; it frequently occurs in paroxysms resembling those of whooping-cough, and is rarely attended with expectoration till a late period of the disease, and as the matter is frequently swallowed, we are deprived of the light which the cha-

acters of the expectoration might throw upon the nature of the disease. Hemoptysis is a rare occurrence; at least, I do not recollect to have met with any case in which it was present. The hectic fever is likewise less perfectly formed, and the perspirations are generally less abundant than in the adult.

"The disease, however, if we attend to the other symptoms, is not usually difficult of detection:—the tuberculous aspect of the child, the rapid pulse and breathing, the frequent cough, and the gradually increasing emaciation, commonly afford sufficient evidence of its nature. Consumption in children is often preceded or accompanied by considerable derangement of the digestive organs; the abdomen is tumid, the bowels are irregular, at one time constipated, and affected by diarrhoea at another; the evacuations in either case are generally of a pale, unnatural colour. This deranged state of the functions of the abdominal viscera has led to the belief that the mesenteric glands were the chief seat of tuberculous disease; whereas, in reality, the bronchial glands and lungs are most commonly affected. It is true that the mesenteric glands become tuberculous more frequently in infancy and childhood than at a later period of life, but by no means so generally, nor to such an extent, as is supposed.

"The disease often commences in the bronchial glands, occasionally proving fatal without affecting the lungs or any other organ; and hence it has been denominated bronchial phthisis (*phthisis bronchique*); and, if the term phthisis be confined to the disease arising from tubercles, the name is unexceptionable. This form is almost peculiar to childhood; at least it is much more frequent at this period of life, and it is at this age only that tuberculous disease is confined to the bronchial glands."

According to the observations of M. Andral, the bronchial membrane in the vicinity of the diseased glands is generally inflamed, just as the intestinal mucous membrane is frequently found to be when the mesenteric glands are tuberculous; this, however, is not invariably the case, as in some instances the same eminent pathologist found the bronchial glands tuberculous where no symptoms of catarrh had existed during life, and no traces of inflammation were discoverable after death.

"The symptoms which indicate the presence of tuberculous disease in the bronchial glands are generally obscure for some time; hence they may be tuberculous without being detected, as it is not until they acquire a considerable size, and irritate or compress the bronchi mechanically, that the local symptoms become evident. The child coughs, is short-breathed, very liable to

catarrh, and occasionally points to the upper part of the chest as the seat of uneasiness. But the same symptoms may be produced by common catarrh or pulmonary tubercles. When the diseased state of these glands is further advanced, the nature of the case is more easily detected. If cough, hectic fever, and emaciation occur in a child, and a careful examination discovers tuberculous disease neither in the lungs nor in the mesenteric glands, we may feel tolerably certain of its existence in the bronchial glands."

Although the tuberculous disease may prove fatal while confined to the bronchial glands, it seldom remains limited to these for any length of time, but soon involves the substance of the lungs, thus occasioning a complication in the symptoms.

"It is not quite a matter of indifference whether the seat of the tuberculous disease be the bronchial glands or the lungs. In the former situation the progress of the disease is slower, continuing in some cases for years, during which the little patient may enjoy pretty good health; the disease, being seated in organs much less essential to life than the lungs, interferes less with the general functions of health, and time is afforded for the correction of the constitutional disorder.

"The termination is various. That the tuberculous matter deposited in the bronchial glands may be removed by absorption, as occurs in the lymphatic glands of the neck, we have every reason to believe; but this is, no doubt, the less frequent termination. Another mode of cure is that by which the softened tuberculous gland empties itself into the bronchial tube with which it is in contact, in consequence of ulcerative absorption of the walls of the tube, as is shewn in Dr. Carswell's illustrations. The matter having passed into the bronchial tube, the cavity in which it was contained gradually contracts till it is obliterated; and the cure, as far as this gland is concerned, is complete. The less frequent cure is that in which a portion of the gland, or rather of the tuberculous matter, remains in a cretaceous state.

"The prognosis of this form of consumption must always be doubtful, inasmuch as it depends on circumstances which we are generally unable to ascertain, namely, the extent to which the bronchial glands are diseased, and whether tuberculous matter is at the same time deposited in the lungs; the degree of tuberculous cachexia under which the child labours, and the character of the constitution generally, will also materially influence our opinion respecting the ultimate result of the case. The prognosis, however, will be more favourable than when the disease exists in the lungs."

(To be continued),

ENTRY OF A JUNIOR MEDICAL PRACTITIONER INTO THE WORLD.

A YOUNG physician or surgeon who has passed some of the best years of his life in the lecture rooms, hospitals, and libraries, expects, on receiving his degree or diploma, to acquire fame and fortune on commencing his professional career. He is well acquainted with the principles of his art, and closely follows them. He employs all that he has heard and read on the investigation of the nature and treatment of disease. He is a scrupulous observer of the rules of art, and fears to break them in their application; he examines with great care, and gives his opinion with diffidence or fear. He is cautious and timid in the use of remedies. The better informed he is, the less presumptuous or rash he will be in practice. He is in general diffident in himself, hesitates or is too anxious about his patient, and is for some years before he acquires a confident assurance, which is the result of experience. He generally supposes that he has mistaken the disease, and has not done enough for its removal. This is the ordinary feeling of the best informed medical practitioners in the commencement of their career; but experience will in time remove it. The complication or intensity of disease may be such that no remedial means can preserve life. The contrast between well-informed and ignorant practitioners is very remarkable.

It has been long remarked that the most uninformed in every science and art are, in general, the most confident and self-sufficient. This is also the case with pretenders to medical knowledge. No case is too dangerous for them; they can cure all diseases, though they kill a vast number of patients. They attribute all their failures to the intensity of disease, and not to their own ignorance. As they have had no preliminary or medical education, which is so necessary to prepare the mind for the investigation and estimation of morbid phenomena, they treat diseases by names, and not according to their real nature. Men of unlettered ignorance usually pride themselves on imagined practical experience, or on what Cullen aptly termed "false facts," and blindly pursue the same erroneous system without a particle of sound judgment. In fact, nothing appears beyond their ability, or too difficult for them to attempt. They can cure all diseases—a power only possessed by empirics; they ascribe their success, in cases in which nature effected a cure, to their active interference, but they never suppose that their failures are in any degree the result of their incapacity. They do not know that experience, without a proper scientific education, is useless.

It cannot be denied, that unless a medical practitioner knows the anatomy and physiology of the human body, or, in other

words, the phenomena of the animal economy, his observation and experience are based on ignorance, and must be erroneous. Such is the advantage of experience, unaccompanied by proper medical information. On the other hand, the well educated junior or senior practitioner, who has had the most extensive experience and information, is always diffident in his own powers, and doubtful of the result of the disease. He never professes to cure every patient.

But I must return to the career of the young physician or surgeon. On receiving his diploma, he is most anxious for fame, and thinks the world ought to be instantaneously aware of his qualification to practise. He, however, speedily discovers, that the world esteems him as a student, and that he is not a more important individual than he was the day or month before he received his qualification. He speedily discovers that patients will not consult him. Some suppose him inexperienced, and too youthful; others have their own medical advisers; and all will prefer practitioners of standing to our young *Æsculapian*. He now thinks that his youth is a great or invincible obstacle to his success, and he sighs for the time in which the public will reward him for all the labour and expense he has incurred in the study of his art. Nevertheless, every other member of the profession had the same difficulties to contend with, and only surmounted them by time, attention, skill, and unexceptionable morality. He does not imagine that a physician, extensively engaged in practice, has any cause to complain. He does not know that such an individual is deprived of all pleasure, recreation, or amusement, and regrets the period of his studies, when he enjoyed liberty. Thus, man is never content with his condition.

The first success or failure of a physician depends on the opinion entertained by the public of his talent. How embarrassing and difficult is the debut of a physician in the world. How careful he must be in gaining the confidence of his first patients, in investigating the symptoms of their diseases, and in employing remedies. He must recollect that others of his faculty have been consulted on former occasions, and that their manners and conduct will be compared with his own. When the disease is dangerous, and he effects a cure, he will greatly benefit his reputation. His religion and zeal compel him to attend the poor and miserable, as well as the comfortable and affluent; and he may gain reputation by both. He will often succeed after his seniors have failed; because they in general belong to the old school, and he to the new. He should not expose their errors, unless glaring, and dangerous to the life of the patient. He is always ready to afford relief to suffering humanity, with or without remuneration. In the same manner, a surgeon should never refuse to perform a doubtful operation when

it is required. The patient ought to have every chance. Either physician or surgeon can explain to the relations the danger of any case.

The essential requisites of a physician are, in addition to the possession of all the virtues, knowledge of the world, and polished manners, an earnest desire for fame, a great love of study, a good knowledge of charlatanism, and what is vulgarly termed humbug, a good share of small talk, and an audacity which nothing can disconcert. The critical reader will inquire, why a medical practitioner should be acquainted with charlatanism and humbug? The answer is, because it is the nature of mankind to esteem quackery, as it professes to effect cures of incurable diseases. All classes of society encourage and patronise empiricism; but an immense crowd of fools constitute the public. In all countries the most absurd quackeries have been patronized, but this is easily explained, when we dispassionately observe the varied degrees of intelligence, and the love of life and of the marvellous which influences all ranks of society.

It must be confessed, though a stain on the dignity of the medical profession, but equally remarkable in every class of society, that some *Æsculapians* have acquired success, fame, and opulence, by fostering the follies and prejudices of the world; and acting as arrant humbugs.

Such men are, however, despised by their brethren, who, in general, are actuated by the love of humanity and reputation. The former are despised by the honourable cultivators of medicine, notwithstanding their titles, station, and influence.

The medical profession has great reason to complain of the follies and injustice of the public. The mass of fools forming the public, with few exceptions, will ascribe professional success to chance or to nature, and if the patient dies, some will not hesitate to declare that the doctor killed him.

They will unhesitatingly proclaim the incompetency of the medical practitioner, unmindful of the well-known and unfortunate truism, that many diseases and many constitutions are utterly incurable.

M. Lorry, a celebrated member of the profession, has happily exposed the folly of the public in this respect. He says—"A physician fond of study, has spent many years in the schools, hospitals, and anatomical rooms; he has passed the best years of his life in the infected air of hospitals, the pallor of his countenance, and the meagreness of his figure, attest the multiplicity of his vigils, and what remuneration compensates for these labours?"

Here the ignorant man of the world declaims against the stability of one of the noblest of human sciences, and unblushingly confounds medicine and empiricism. Thus there are many, whose lives have been

saved by medical practitioners, forget it, and even denounce the medical faculty.

If the public do not derive the usual advantages from medical practitioners, they should blame themselves for encouraging illiterate pretenders to medical knowledge, nominal doctors, and empirics. Such impostors are very numerous in all countries; and if the public do not take the trouble of distinguishing the learned from the ignorant, the fault is their own. If the nobility and gentry prefer the St. John Longs and such basket makers, the Hahnemanns, and other empirics, the woodmen of Molière to well educated and eminent medical practitioners, they must not decry the benefits of the healing art, and depreciate the Coopers, Bells, Dupuytren, &c. &c.

In general, young medical practitioners are most attentive to their patients, and render them the greatest services. So do all duly educated members of the medical profession, who are influenced by the code of ethics laid down for their guidance. There are some, however, among the eminent in all countries who are a disgrace to the profession. They take advantage of public credulity, which in all ages has rendered the worthy part of mankind dupes to the artifices of the knavish; who, unrestrained by principle, are ever eager to profit by the unsuspicious disposition of generous minds. Among the various kinds of imposture practised on society, quackery has always been the most successful, in consequence of the extreme respect paid to the professors of the healing art. These have now and then availed themselves in acquiring reputation on the foibles of the public.

Reputation of a Physician.—When the desire of reputation is inspired by the love of fame, it is allowable, because it tends to the good of society. It has been often observed that those physicians who have not a laudable ambition to rise to eminence by their talents and honourable conduct, seldom or ever become renowned. They remain every-day characters, and never obtain the highest places in the profession. When a thirst for gold is the only object of professional reputation, it leads to meanness and disreputable behaviour. We see empirics, illiterate and professional, amassing great wealth at the expense of every virtue which adorns the true medical character.

The public is the cause of this, as it awards reputation by caprice, and this is the reason that charlatans share, in common with educated physicians, reputation and renown. They announce with unblushing effrontery their marvellous powers, and all ranks of society, both high and low, are ready to believe them. Kings, nobles, and commons, patronize the empiric, no matter how preposterous his pretensions. Let him be an animal magnetizer, a homœopathist, an extractor of all diseases with a stimulating,

liniment or metallic tractors, it is all the same. Witness the patrons of a Long and a Hahnemann, of a Graham and his celestial beds, from which a noble race of offspring was to follow; witness a scion of nobility attesting, three years since, that he saw a quack extract quicksilver from a lady's brain. Look to the noble patrons of Hahnemann, who believe the most salutiferous doctrine, that the millionth part of a grain of magnesia or of sugar could not only cure a city, but an empire, however extensive.

What difficulties, on the contrary, has the modest man to surmount before he can obtain the smiles of public favour.

There is, however, in medicine, different kinds of reputation which lead to fame and fortune. One gives himself up to scientific pursuits, another distinguishes himself by writing or teaching, a third is renowned as an excellent physician, a fourth as an operative surgeon, or obstetrician.

It rarely happens that one individual possesses these different titles to celebrity. The healing art is too long and extensive for the greatest genius to comprehend it in all its parts. One is super or in medicine, another in surgery, and another in obstetrics, chemistry, botany, &c.

When a physician acquires reputation by merit, he should never attempt to increase it by resorting to the artifices of charlatanism, which invariably lowers him in the estimation of his brethren, and, through them, of the public. He should avoid all species of puffing, whether having nurses or relations to trumpet his abilities, or superficial works to circulate gratuitously among his connexions and their friends. If his fame be founded on talent and merit, it rapidly increases without these artificial helps—it enlarges as it progresses—*Vires acquirit eundo*.

If the cacoethes scribendi should seize one, let him write something rare, new, or nothing: *scribe rara aut nova, vel nihil*. The style and composition ought to be correct and elegant. Citations may be numerous and acknowledged, though some writers too often give the whole of other men's works and opinions as their own. These are generally detected and exposed by reviewers and critics. It is no excuse to the reader, that a work is written or printed in a hurry, and full of blemishes; the public would have waited for it with patience, and seldom care if it had never been published. An author should deliver his opinions with modesty, and expose what is true, dubious, or erroneous. He must rarely condemn others, or censure the living or dead, with undue severity. He must praise sparingly, and vituperate more sparingly. There are some writers and critics who praise no one, and vituperate every one. They find fault with every thing—style, composition, opinions, arguments, observations, and conclusions.

They hold, that every thing is to be found in the works of the ancients, and that there is nothing new under the sun. These critics raise a host of enemies against them, and seldom have any friends. They should adopt the ethical axiom:—"It is not right always to praise or dispraise"—*Nec laudare semper, nec semper vituperare decet*. *Lauda parce, vitupera parcius*. *Lauda recentes, lauda veteres, vel utrosque carpe, si licet*. *Stet sua cinque reverentia, suis honos*. *Non vivent auctores enormiter laudes, ut vicissim lauderis*. *Stet verbis, stet titulis stet sua encomiis mensura*. *Unico libello scriptores omnes, omnes amicos non alliga*. *Nec ænulorum, nec mortuorum laudes dissimules, nec excedas*.

When criticism is unjustly severe, it often becomes pointless, and only serves the circulation of a work.

There is no work free from some objection, and there is a vast number of modern publications deserving of severe criticism. Thus one man writes a pamphlet or book for the express purpose of making himself known by advertisements in the public journals; another does not state a fact that was not well known for centuries before he was born; another gets himself puffed in a sly paragraph of some newspaper; and in these, and a thousand other ways, do medical practitioners attempt to captivate the public. These schemes, *ad captandum vulgus*, are derogatory to the dignity of medicine, though they are now unblushingly laid by some of our highest physicians and surgeons. We daily observe their advertisements by the side of those of empirics, and their paragraphic puffs are most abundant.

Besides these modes of gaining fame, we find physicians and surgeons recommending apothecaries, and *vice versâ*. The female portion of their own and other families become puffers of their skill, and often succeed in increasing their fame. A lady of title has been known to make the reputation and fortune of her medical attendant.

People of fashion are led by notoriety and imitation of each other, and thus the physicians to royalty are indispensable to the nobility. No other will do.

In other instances, a reputation and a name are made by many petty artifices—by gossiping, a talent for flattery, the influence of medical and other patrons, and, lastly, by religious partisanship. These means will often raise a medical man in public estimation, though he does not possess a ray of talent; while the man of genius, of erudition, and of practical knowledge may, without them, remain in "illustrious obscurity" all his life. He sees numbers of his inferiors who, by their address, policy, and worldly wisdom, rapidly pass him by, and leave him in the shade.

Nevertheless, what a galaxy of men of genius and knowledge have risen to emi-

nence and fame. It is unnecessary to multiply examples; but be it observed, that no physician arose to greater eminence, since Hippocrates, than Boerhaave. A letter was addressed to him from China with this superscription—"To the Great Boerhaave, in Europe." The letter reached him,

—o—

The London Medical

AND

Surgical Journal.

Saturday, August 1st, 1835.

—

ANATOMY ALIKE INDISPENSABLE TO PHYSICIANS AND SURGEONS.

ANATOMY is generally admitted to be the basis of scientific medicine, but its particular study is usually considered as more indispensable to the *surgeon* than to the *physician*. This, we think, is a great mistake; for, in the first place, we cannot perceive any valid distinction between physic and surgery, and consequently we regard what is essential to the one as equally essential to the other; and secondly, admitting the arbitrary distinction which at present obtains in the profession, we maintain, that an extended knowledge of anatomy, so far from being of less consequence to the physician than the surgeon, is of infinitely more.

It is quite erroneous to suppose that the mere operator need be a profound anatomist; the knowledge of this subject which he requires is in effect extremely limited, though it must be perfectly accurate as far as it goes. He must be well acquainted with the relation of the principal blood-vessels and nerves, to the surrounding objects—the position of the viscera, and the structure of the joints; but what is there in all this which any man of ordinary capacity may not learn in the course of twelve months' diligent attendance in the dissecting room?

Of what use to the mere operator is the minute anatomy of any organ in the body? What is he profited by the researches of Tiedemann on the brain, or

those of Kiernan on the liver? Of what use to him is general or physiological anatomy? All these things are foreign to his purpose; it is the mechanical relations of a certain number of parts, not the vital relations of the entire organism, with which it is necessary that he should be conversant.

But it is far otherwise with the physician. In comparing the various results of the same morbid action in different tissues, how important to him is the study of general anatomy? in tracing the sympathy of distant organs with those on which morbid impressions are immediately made—an inquiry into which it is probable that the greater part of the theory of medicine will one day be resolved—how essential is a minute acquaintance with the origin, distributions, and connexions of the nerves? in exploring the morbid anatomy of fatal cases, how indispensable is a knowledge of every peculiarity, however minute, of texture, colour, and consistence, in every part of every tissue in the body? what ludicrous blunders are continually committed through ignorance of such particulars, when "highly diseased conditions" and "very remarkable appearances" are libellously recorded against parts that are perfectly healthy, if the wise men did but know it!

The popular error prevalent in England, that a small knowledge of anatomy is sufficient for a physician, has arisen from the actual deficiency of those who have been looked up to as the heads of the profession of physic—the fellows of the London College of Physicians—who are not required to give any proof of having ever been engaged in the prosecution of practical anatomy—many of whom probably never dissected a subject in their lives—and who, taken as a body, are perhaps, without any exception, the worst anatomists of all medical practitioners on the face of the civilized earth. But we would hope, and are rather inclined to believe, that

some of the junior fellows have become fully sensible of the miserable deficiency of their order; are convinced that Greek, though exceedingly imposing, will not teach men to reason upon or to treat the diseases of the human body, and that the most unlettered apothecary who understands the structure and functions of the animal machine, is more adequate to the treatment of a fever than Porson himself. We are quite sure that none of our habitual readers will misconstrue these remarks into anything like a depreciation of classical and literary attainments: we have again and again expressed our opinion that medicine can never flourish long when disjoined from literature; but we must always insist on essentials before accessories—for example, *grace* is a highly desirable qualification in an equestrian, but the first and most indispensable qualification is, that he shall know how to keep his seat; the clumsiest persistence in the saddle is preferable to the most elegant projection over his horse's head; and, in like manner, the practitioner who questions his patient in bad English, but cures him of his disease, is much to be preferred to the most erudite *fellow*, who should kill him, or let him die, and then sing his elegy in Greek strains worthy of Tyrtaeus himself.

—o—

BIRTH EXTRAORDINARY.

ON Saturday, the 25th inst., in Green Lizard Street, an hospital physician was delivered of sundry cases. The only drawback to the joy which so unusual an event is calculated to produce—for time out of mind sterility has been the cleaving curse of the brains of the gentry in question—is the fact that the offspring is scanty, deformed, has no good and prominent features, and appears, indeed, to be mere wind and skin. This, however, cannot be wondered at, when we consider the pains of the head with which such parents always generate, and the vast difficulty they have ever had in bringing forth,

in the few instances on record, in which they have been tempted into the sin of propagating an idea at all.

—o—

Summary of Orfila's Observations on the changes which occur in the Tissues of Dead Bodies after Interment. Appended to Sédillot's Manuel de Médecine Légale. Translated from the French, for this Journal.

(Continued from p. 329, Vol. VII.)

Evolution of certain Gases.—We could not give a complete account of the changes which occur in the different organs after inhumation, if we omitted to notice the evolution of certain gases which occasionally takes places in most of the tissues.

The stomach, intestines, pleura, pericardium, right cavities of the heart, *venæ cavæ*, and other parts of the venous system, the uterus, the cavity of the peritoneum, and the areolæ of the cellular tissue, may be distended with gases, which result from the decomposition of the fluids: this is observed particularly after speedy and violent death, preceded by acute pain and severe struggles; under such circumstances the body sometimes becomes so emphysematous as to float on water.

To the evolution of gas within the veins is to be attributed a phenomenon apparently very extraordinary, and from which the ancients supposed that a *legal* conclusion might be drawn—we mean the oozing or even spouting of blood from wounds. Is it surprising that the blood contained in the veins should escape from the open extremities of the vessels in a wound when it is propelled by gases evolved within the venous system? After having explained succinctly the phenomena which different organs present during putrefaction, it may not be unprofitable to cast a glance over the principal changes undergone by the head, chest, abdomen, pelvis, and limbs, and even by the grave clothes and the coffin.

Head.—While the head still remains attached to the vertebral column, and preserves all its connexions, the eye-lids are attenuated and so much sunk, that at first sight the orbital cavities appear to be only half filled; the globes of the eyes very soon collapse, and the nose also shrinks; sometimes, however, only at the sides. Soon after, the hair falls off; the eye-lids, soft parts of the nose, and the lips, which are already much shrivelled, disappear; a portion of the skin of the cranium is also destroyed, and the bare bones are covered with a thin layer of a bistre-coloured, fatty matter. At the back part of the head there is a sero-sanguineous infiltration under the skin, and between the periosteum and the bone, arising from the supine position of the body—consequently the soft parts are here easily detached, although the integuments

still preserve a pretty firm consistence; In the midst of all this destruction the ears and cheeks are in moderately good preservation. Here and there, on the cranium and face, we find a moist downy mould, of a green or whitish colour. Later than this, between the third and fourth month (judging at least from the examinations made at the Bicêtre), none of the soft parts of the face remain; there are only some membranous vestiges, especially about the jaws: but the inferior maxillary bone still retains its connexion with the temporal, and the head with the vertebral column—a small degree of force, however, is sufficient to disunite them. At a still more advanced period, the jaws, widely separated, expose to view the basilar process of the occipital bone; they are still united by some remains of the soft parts, and the head preserves a very feeble attachment to the trunk. Finally, the bones of the head are completely disarticulated and denuded, and those of the cranium are covered with a magma composed of earth, and hair, which, being removed, discovers their bistre-colour, shaded here and there with large patches of deep brown.

Thorax.—For the three first months the thorax rarely undergoes any change in its form or in the relative position of the parts which compose it. The cavities of the pleuræ may contain a larger or smaller quantity of fluid, but such effusion is not the result of putrefaction: the shrivelling of the thoracic viscera, and especially the lungs, is not yet so great as to produce any remarkable vacuity of the thorax. Some time after this the sternum is much depressed, and appears to be almost in contact with the spine; it is easily raised with the hand; some of the ribs begin to separate from their cartilages; the intercostal spaces at certain points are filled up with nothing but a grayish membrane; the interior of the thorax, when cut into, appears empty and lined with a membrane resembling in colour and consistence gray paper that has been soaked, nor is it evident of the remains of what parts this membrane is composed. Later than this the ribs are almost entirely denuded, and scarcely retain their attachment to the sternum, which has fallen in, is of a brown colour, and often covered with mould; almost all the sternal cartilages are separated from the sternum and ribs; those which remain are black, pierced with holes, flexible, and easily removed; they are broken without much difficulty, and their fracture is accompanied with a slight sound; patches of mould, white or variously coloured, are scattered over the internal surface of the thorax, and some of the intercostal spaces are void by the destruction of the soft parts. At a more advanced period the sternum and cartilages of the ribs have separated, their remains are scattered in the thorax and abdomen, and a

large gap is thus occasioned in the anterior part of the former cavity. Still later than this the shape of the thorax is quite destroyed, the sternum has separated into two pieces and fallen into the cavity; the ribs are almost all detached and lie upon one another on each side of the body; they are covered with a black substance resembling a moist vegetable extract, and which is formed of the remains of the soft parts; the ribs are not more frangible than in their fresh state, but their internal substance is very dry and porous; only a very few of them retain a portion of their cartilages, which are very flexible, of an olive gray colour, and covered with a brownish coating, which appears worm-eaten here and there, and presents a very porous texture when cut into; the internal substance of the cartilage is destroyed.

Abdomen.—For a long time the abdomen does not exhibit any remarkable alteration, except that its external surface becomes green, yellow variegated with green, or of an ochre colour. From the third to the fourth month, according to our observations, it collapses, and its parietes approximate to the spine; some time after its parietes are reduced to a membranous layer, which is sometimes humid, but more frequently dry, thin, brown, mouldy, and covered with earth, easily lacerable, and closely applied to the vertebral column, and even to the pelvis; when it is raised a considerable cavity is observed on each side of the spine and in the pelvis. When the parietes are in a humid state they are composed of layers of a soapy appearance and yellowish-white colour, which are usually separated from each other by an immense number of worms. Some weeks after the abdominal parietes are so glued to the spine that they cannot be easily detached, except at the sides, where they consist of a foliated layer of a blackish red colour internally, and sometimes encrusted externally with adipocere. From the attachment of the sub-umbilical parietes to the spine, a distinct cavity is formed, extending from the xiphoid cartilage to a little below the navel. Sometimes the membranous layer, which is attached to the spine, instead of presenting a smooth surface, is full of elevations and depressions. At a later period the parietes of the abdomen are reduced to some tegumentary remains, which are of a bistre, olive, or blackish colour, and often perforated in many places; they still adhere to the lower ribs, to the pubis, and to the posterior part of the iliac cristæ: these remains appear to be formed by the peritoneum, and perhaps some portions of the straight and oblique muscles, much desiccated and altered from their original texture. Finally all is destroyed, and we find nothing but a black humid matter, like the grease of a wheel, adhering to, and tinging, the bones on each side of the spine, and forming, in some places, masses half an

inch thick, which are evidently the remains of the soft parts.

The state of preservation of the abdominal viscera depends principally on the degree of integrity of the abdominal parietes; it may therefore not be uninteresting to throw a rapid glance over the comparative periods at which the latter are destroyed. With respect to the decomposition of these, as of other parts, we find an immense difference depending on causes which are often difficult to determine. Thus, we have found no traces of the abdominal parietes in one subject nine months and eighteen days after inhumation, and in another thirteen months and sixteen days after; while, on the other hand, a portion was still remaining in a body that had been buried seventeen months and six days; and, what is much more extraordinary, another body which had been interred for twenty three months and five days presented the anterior wall of the abdomen nearly entire, in the form of a membrane appearing as if tanned, with the umbilical depression visible in its centre, and with layers of a bistre or blackish colour like moistened tobacco leaves adhering to it; these layers were united to each other by soft filaments like tinder, which were easily torn. All these subjects had, nevertheless, been deposited in coffins of the same wood, and of the same thickness, each surrounded by a cere-cloth, and had been laid side by side in the cemetery of the Bicêtre. We may add to these instances, that of a subject which had been buried two years and nine days, in which no vestiges of the abdominal parietes were visible, although the body had been contained in an exceedingly thick coffin, and enveloped in a linen cloth.

(To be continued).

—o—

Hospital Reports.

MIDDLESEX HOSPITAL.

Fistula in Perineo, after Lithotomy, of six years standing, successfully treated.

A REPORT of the above case, and of the operation which Mr. Mayo performed for the relief of the patient, will be met with in the number of our journal for April 11th, at page 350, of the last volume. We are happy to say that the operation and means subsequently adopted have been so far successful, that the boy is now nearly cured of the fistula, through which no urine has escaped during the last fortnight, and of which only a very small external opening remains.

During the last two months the boy has had pressure applied to the opening in the perineum, by means of a small, oval, ivory pessary, supported on a steel spring, and connected with a steel truss passing round the loins.

In order to obtain a perfect closure of the opening in the perineum, Mr. Mayo has lately twice touched it with the actual cautery, in the form of a silver probe properly heated, under which treatment there is every appearance of any remaining vestige of the lesion speedily disappearing. At the present time, upon introducing the probe into the opening, it does not appear to pass into the urethra, or rather neck of the bladder, the opening into which is doubtless closed. The case is a highly interesting one, and its successful result cannot fail in encouraging surgeons never to despair in their attempts to remedy fistula in perineo, even when connected, as this was, with the bladder; and when, as was likewise the case in this instance, they have been of long duration, and have baffled the exertions of other practitioners.

—o—

WESTMINSTER HOSPITAL.

Erysipelas Gangrænosum—Death.

DANIEL GRIFFIN, a labourer at the gas-works, aged 50, was admitted into Henry Hoare ward, July 15th, under the care of Mr. White. It appears that, having been suffering from an arthritic affection of the left ankle joint, attended with a good deal of swelling, he had been attending as an out-patient at the hospital, in the physician's department. Amongst other remedies prescribed for his relief, was cupping over the joint, and this was performed on Saturday, the 11th ult. He states, that on the application of the scarificator, he felt a very severe pain, "just as if the instrument had gone to the bone." The next day (Sunday), the swelling in the joint had considerably increased, and has spread a little up the leg, but does not appear to have attracted much of his attention. The redness, however, and other inflammatory symptoms, continuing to increase, he was transferred to the surgeon's care, and taken into the hospital. Upon his admission, the attack appears to have been regarded as principally rheumatic; and the attendant superficial inflammation, as merely a little erythema, so frequently a concomitant of arthritic inflammation. The following remedies were therefore ordered:

Rx. Ext. colchici acetat. gr. vj;

Pilul. hydrarg. 3ss.

M. ft. Pilul. vj. Capiat, j; ter quotidie.

Habebat lotio. alcoholic. Evapor. assidue applicandam.

17th. The pills have acted very freely on the bowels, indeed to an undesirable extent. The local affection has now put on a very unfavourable aspect, the tumefaction of the leg and foot has much increased, and an erratic blush of inflammation has spread up to the knee, and, on the under surface of the limb, has travelled three or four inches higher than that joint, the under sur-

face of which is very tender. The tumefied part of the limb, near the ankle and half way up the leg, is about double the healthy circumference: it is glabrous, and pits slightly on pressure. A considerable portion of the skin over the dorsum of the foot, and outside of the leg, is of an opaque white colour, almost like parchment, and appears to have lost its vitality; and there are several livid spots on the leg, which is more or less of a lurid red colour generally. Pulse 120, feeble; tongue red, with the centre furred; he talks rapidly, and in a somewhat incoherent manner; the nurse states, that he was somewhat delirious during the night.

R. Quinina sulph., gr. xx;

Decocti cinchona, ℥ viij.

Ft. Mistura. Capiat cochl. ij ter quotidie.

Repet. lotio. calid. app.

18th. Has passed a delirious night, could scarcely be kept in bed; and is almost constantly singing. Looks worse this morning; his countenance is sunken and anxious; eyes as if depressed in the orbits; the left eye is red and suffused, from turgescence of the vessels of the conjunctiva. Tongue is more deeply furred than yesterday, and there is a collection of dark sordes about the teeth and lips; pulse 144, very feeble and small. The hands and upper extremities communicate a cold clammy sensation to the touch. The leg appears much worse; a livid colour now generally predominates; the extent of surface of the dead white skin has increased. The erysipelatous inflammation does not appear to have spread much up the thigh. Mr. Soden made a few punctures with the lancet in the part where redness prevailed, and thus obtained a little blood. Warm fomentations are now kept constantly applied, and he is ordered to have four ounces of brandy in the twenty-four hours, and the following mixture:—

R. Ammon. carbon., 3j;

Liq. ammon. acetat. ℥ iss;

Mist. camphoræ, ℥ vj. M.

Ft. Mist. Capiat cochl. iij 4tis horis.

19th. Passed another delirious night; the leg gradually became worse, and the gangrenous character more apparent. The erysipelas has spread up the thigh since yesterday. He has the application of fomentations continued to the leg, and flour is dusted over the thigh. The quantity of brandy has been increased from four ounces to eight in the twenty-four hours.

Repet. mist. ut ult.

20th. Had another very delirious night. He gradually became worse, and died this morning at 10 o'clock.

No autopsy could be procured.

UNIVERSAL CODE OF GENERATION.

PART II.—GENERATION OF ANIMALS.

WHAT a vast, sublime, and at the same time delightful field, is the study of the generative functions in this class of living beings, at the head of which stands the human species! What curious and varied phenomena, all tending to the same result! What an incalculable profusion of different reproductive processes nature employs for the propagation of the numerous species which she calls to the banquet of life! And, nevertheless, what unity and what analogy of propagative actions among all the individuals of the same class, from the bramble heath on which we tread to that proud being who is so eminently qualified to be prince of animals, and king of the universe.

Though the study of the generation of animals presents to the mind of the observer a host of subjects capable of vividly exciting the curiosity, it still furnishes a host of gifts of the deepest interest, whether we consider the advantages of the beings under our empire, whether to serve our comprehension and explication of the numerous phenomena of human generation, on the mechanism of which nature would appear at first view to have thrown an impenetrable veil.

A complete history of the generation of animals, and especially of the infinity of modifications in this mysterious process of perpetuating each species, would be an immense undertaking, to which the entire life of one man would be insufficient, and which is beyond the comprehension of his natural faculties. What an infinite number of organizations and different species among the millions of living beings which the earth receives on its surface, which fly in the air, and which swim in the unfathomable ocean! What an immense number of others whose organization, and consequently the mode of their reproduction, escape the eye, even assisted by the most powerful microscopes.

How numerous are the springs, says Buffon, the powers, the machines, and movements included in that small portion of matter which composes the body of an animal! What relations, harmony, and correspondence between the parts! How many combinations, arrangements, causes, effects, and principles, which concur to the same effect, and which we only know by the results, so difficult to be understood; and they have not ceased to be marvellous, but on account of our not reflecting upon them. Nevertheless, how admirable does this work appear to us; it is not in the individual that the great wonder exists, it is in the succession, renovation, and duration of the species, that nature appears altogether inconceivable. The number of the species of animals is much greater than of plants, which amounts, it is said, to 40,000. There is, perhaps, a greater number of in-

sects, most of which escape our observation, than there is of plants visible on the surface of the earth!

It is, therefore, beyond our powers to enter into all the details which so vast a subject comprehends, and we must necessarily confine ourselves in this work to the general notions, which are the most curious and important, on the procreation of animals. We shall, nevertheless, enter into some details concerning a certain number of species; but they must be confined to the most remarkable phenomena, and the most interesting to be known for the design and object of this work.

I shall follow, in the exposition of facts relative to generation, the classification which is most generally known and adopted in these times—that of zoophytes, insects, crustacea, worms, mollusca, fishes, reptiles, and mammifera, at the summit of which stands the human species.

SECTION I.—ZOOPLYTES.—These are a species of animals where organization, sensibility, and contractibility are very little developed, so that they have been considered as occupying a middle place between the vegetable and animal kingdom. Such are the microscopic infusoria, which are sometimes seen in millions in a drop of water or on a diseased tooth, by the aid of a solar microscope, as sponges, corals, polypi, intestinal worms, hydatids, &c. &c.

Natural history as yet does not furnish satisfactory information on the mode of the procreation of this obscure class of animals. Some are hermaphrodite, as the sponges, and propagate like flowers; others, such as the polypi, are propagated by parts or prolongations, as a great number of plants, which, when cut in slips or parts form new beings; and, finally, there are others which are reproduced by eggs, such as intestinal worms, and hydatids.

The eggs of these animals, and especially of hydatids and the aqueous worms, are so minute, that they are said to pass from one individual to another in the process of generation, to circulate in the blood, and be deposited in the substance of organs, in which they are capable of germinating and transforming themselves into living animals of greater or less size, which are more or less injurious to health. These parasitic animals are found in the stomach, bowels, liver, spleen, lungs, brain, bones, &c. &c., in which they occasion fatal diseases. Living hydatids have been found in all tissues in the body, and also in the brain, liver, and other organs in sheep. A late writer, Mr. Buchanan, describes worms which he found in the blood; and the fact has been recorded, that worms exist in the bowels of the fœtus in utero. Now, when we consider the envelopment of the infant in membranes and the womb, as well as the other impossibility of the worm passing into the stomach, we must conclude that they must have been transmitted by generation.

Moreover, the existence of hydatids in the substance of the liver, brain, bone, &c., cannot be accounted for on any other principle, except the generation of such animals in such tissues. This fact is not refuted by the host of evidence brought forward by the learned Dr. Good, in his *Study of Medicine*, in favour of the ingestion of the ova or eggs of worms from without, in various aliments and drinks. Dr. Tiedemann accounts for parasitic animals by spontaneous generation. (*Treatise on Physiology*, &c., translated from the German by J. M. Gully, M. D., and H. Lane, M. D.)

Green fruits and herbs favour, on account of their humidity, the development of parasitic animals. It is for this reason that we so often observe worms, the lumbrici, ascariides, and tœnia, in persons who take too much green fruits, more particularly in children. Hence the medical proscription of unripe fruits.

SECTION II.—INSECTS.—Insects are considered so insignificant by most persons, that few, unless naturalists, have sufficiently observed the phenomena they present. In these, however, there are separate and distinct sexes, organs which prepare the generative fluids, a real and visible copulation, a greater or less number of eggs, the changes of these into animals more or less perfect, mutations and transformations of these animals until they acquire their complete development, with many other curious and interesting considerations. Such are the facts which the silkworm, the butterfly, the bee, the fly, the spider, even those parasitic animals which are sometimes found on the surface of the human body present us.

Sex of Insects.—There is a glandular body (testicle) in the abdomen of the male insect, supplied with blood-vessels, and destined to form a fluid, which is conducted by a tube (vas deferens) to a small bladder (vesiculæ seminales), from which another small tube (ejaculatory canal), which conveys the reproductive fluid to the female organs. It is easy to observe near the anus of the butterfly, bee, wasp, and other insects, a small elongated body which is capable of erection. There are, however, exceptions in certain insects, as the male spider, for example, in which the sexual organs are near the mouth, and in some others under the abdomen.

We also observe a perfect genital apparatus in the abdomen of the female insect. It consists of a glandular body (ovary), destined to prepare a number of eggs, which are finally to be transformed into new beings. The ovary opens by a canal (vagina in animals, style in flowers) near the anus, and this tube is destined to convey the male seed during coition, to the eggs in the ovary, and to transmit these, after fecundation, into the world (parturition).

In most females there is a canal of greater or less length, terminated by a point, in which there are beds for the eggs. There

are also other distinctive characters of the sexes. The males are in general smaller, they have antennæ (horns), are knotted, possess beard or hairs, which are not recognized in the females of the same species. Certain others have wings, while the females have none, or very small ones; the male is often grey, the female white. There are some insects, such as bees and certain ants, which are incapable of reproduction, on account of the imperfection of their sexual apparatus. These are neuters, mules, or hermaphrodites.

Puberty of Insects.—It is when insects have arrived at the period of their development and strength that they deliver themselves to the act of reproduction; and this epoch arrives, in general, every year, at least in our climate, at the return of spring and before autumn. Then, the larvæ of the caterpillar, which were worms, acquire the beautiful forms which we so much admire in the various butterflies. Their sensibility and their contractility acquire the most sudden and extraordinary development. All their movements are performed with extreme agility; they are in a state of continual agitation; they search with ardour for the act of reproduction; they appear to wish to compensate, by the rapidity of their actions, for the short duration of their existence. It is, however, impossible to conceive the functions of insects without a preliminary metamorphosis through which they must pass before the brilliant epoch of puberty.

Metamorphoses of Insects.—Flies, bees, wasps, butterflies, and an infinity of insects which we see flying in the air, and ardently delivering themselves to the pleasures of reproduction, have not acquired this perfection at one period but by a series of mutations, which are termed metamorphoses. The silk-worm affords a familiar illustration of these mutations. The first state of these animals, as in all insects, is eggs, deposited by the female in a favourable situation for their development. They generally require six months to expand into living beings.

The first products of the eggs are very small, elongated animals, resembling worms, except that they possess sixteen spots like those on the leaves of the mulberry tree, which enlarge with great rapidity.

The insect is now called larva, caterpillar, or silk-worm. The insects which we see in cheese, bacon, &c. are larvæ of flies and other insects in the first stage of their existence*. The larva rapidly changes its skin four times, and then forms a bed or tapestry of silk, in which there is an oval opening. This habitation preserves it from being injured by other insects or foreign bodies, and is called a silken shell or follicle. On dividing these shells we see the larva. Thus

surrounded by this shell, the larva soon throws off its fourth skin, and assumes a new form called nymphæ, chrysalis, aurelia, &c. In about three weeks after this change, the aurelia assumes a new and its last transformation, which renders it totally different from its primary states. It now becomes a perfect insect, of a white colour, which rapidly escapes from its habitation; it flies into the air by the aid of its four wings; it speedily seeks the other sex, and turns its short existence after copulation to the best account, as it dies immediately. Such is the ordinary mode of development of the greatest number of insects which fly in the air, including the species of butterflies, which amount to 1500. All insects do not pass through such complete transformations, even among the winged tribes. Thus, in aquatic grasshoppers, crickets, flying bugs, &c. the larvæ acquire only the new skin and wings which they wanted. Other insects only experience slight changes in their skin, either by renewing the skin or changing the colour: thus ticks, mites, hand-worms, fleas, crablice, spiders, &c. observe these laws; but it is superfluous to enter into more minute details.

Copulation of Insects.—These, like all other living beings, cannot perpetuate their species unless by copulation and the emission of seed. As in plants and higher animals, the spermatic fluid of the male is ejaculated into the organs of the female, and transmitted to the ovary, whose eggs it vivifies.

At the return of spring, when the surface of the earth is warmed and re-animated, the innumerable tribes of insects are roused from their torpidity and hibernation by the rays of the sun, all are impressed to pay their tribute to the goddess of love, and of regeneration. The spermatic odour of flowering plants exalts the amorous impulse of insects, and all animated nature multiplies and reproduces. We may now observe a vast number of insects in the act of copulation, butterflies, common flies, &c. &c.

Male insects are much more numerous than females, but after fecundation they lose their vigour and perish. It often happens that the male expires immediately after having paid his tribute to nature, and in other instances, he is put to death by the female, which surpasses him in strength and vigour, which I have often observed among domestic flies, spiders, &c. &c. In other examples, as among bees, the male and female unite and act in concert for the physical education of their little ones, which they deposit in a place of safety, and defend them from all aggressors and injuries.

Deposition of Eggs of Females.—Almost all insects are oviparous, that is to say, are reproduced by eggs. These require six or seven months for transformation of larvæ into insects. Others are fully developed in a few days, and many require the lapse of

* There is a vast deal of information on this point in Good's Study of Medicine.

years. There is also a great variety in the months of the years in which these transformations take place. In the greater number of insects and in temperate climates, the greatest number of transformations occur from the month of June to the month of September, though there are some in winter.

Most insects perish immediately after copulation, but there are some, as spiders, which survive and propagate for several years.

(To be continued.)

—o—

Foreign Medicine.

Heat of the Organs.

MM. BECQUEREL and Breschet have instituted a series of experiments on this subject, the conclusions from which are as follows:—

1. There is a palpable difference between the temperature of the muscles and of the cellular tissue in man, and lower animals, and this seems to depend on the external temperature, or the manner in which the individual is clothed, &c. In man the muscles exhibit differences of temperature, varying from 2 deg. 25 min. C. to 1 deg. 25 min. Living bodies are, therefore, in something of the same condition as lifeless bodies, whose temperature has been raised, but is undergoing a continual cooling from the circumambient medium. This cooling affects the animal layers from without inwards.

2. The medium temperature of the muscles of three young persons, 20 years of age, was found to be about 36 deg. 77 min. C. Davy found the human heat in general to be 36 deg. 66 min. Despretz, for the medium temperature of nine men 30 years of age, found 37 deg. 14 min.; for that of four men 68 years old, 37 deg. 13 min.; of four youths above 13 years, 36 deg. 79 min. The result obtained by Breschet's and Becquerel's new method will be seen to be nearly the mean of the temperature obtained by Despretz and Davy, by means of the thermometer.

3. The medium temperature of the muscles of several dogs is 38 deg. 30 min., whilst Despretz assigns 39 deg. 48 min. as the temperature of that animal. This difference of more than a degree induced Breschet and Becquerel to repeat their experiments several times, but they never got as high a temperature as that given by Despretz. They remark, that the temperature of the muscles changes in a marked manner with the individual state of health, by which the slight variations, in one individual observed, may be accounted for.

4. In the dog, the temperature of the chest, of the abdomen, and the brain, is actually the same as that of the muscles.

5. The common carp exhibited a difference of only half a degree between the tem-

perature of its body and that of the water it swam in.

The repeated contraction of a muscle raises its temperature at least half a degree. Continued violently for some time, the elevation is sometimes more than a centigrade degree. On the other hand, the compression of an artery going to muscles, lowers the temperature of them by several tenths of a degree.

MM. Breschet and Becquerel purpose, in a future memoir, to state their measurement of the temperatures of arterial and venous blood, as well as of the different parts of human and other animal bodies that are not in the normal condition.

—o—

Identity of Grenadine and Mannite.

MM. Latour and Guiart, from close observation of the physical and chemical qualities of these substances, have come to the conclusion that they are identical. The details of their experiments and reasoning are contained in the *Journal de Chimie Medicale* for the present month.

—o—

Cæsarean Operation.

WE learn with pleasure from Dr. Joseph G. Nancrede, of this city, that the patient under his care, upon whom Professor Gibson performed, on the 25th of March last, the Cæsarian section, continues, up to this day, the twenty-sixth since the operation, to improve daily. The wound has closed entirely in about two-thirds of its extent, the remaining third presenting yet a granulating surface, which every day diminishes in size. The mother sits up in bed, and in a day or two will be enabled to leave it. Her babe, which is a fine and healthy one, she nurses entirely herself. Dr. Nancrede promises for our next number a detailed account of this very interesting case.

P. S. Since the preceding was in type, we have, by the polite invitation of Professor Gibson, visited with him and examined this patient. She came down stairs to receive us, and except a little weakness, was in the enjoyment of her ordinary health. The wound is cicatrized, and she states, has been so for some days. The child has every appearance of perfect health. It is now thirty-nine days since the performance of the operation, which must be considered as entirely successful.—*American Journal of the Medical Sciences.*

—o—

LITERARY NOTICE.

We are happy to hear that a translation of M. Raciborski's *Manual of Auscultation* is now in the press, and about to be published by M. Bailey, of Cornhill. The translation is by Dr. Fitzherbert. Such a work is most desirable, when we look at the effete nonsense that has appeared in the shape of English Manuals on the same subject.

THE

London Medical and Surgical Journal.

No. 184.

SATURDAY, AUGUST 8, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE X.

Inflammations of the Pneumogastric Mucous Membrane—Ophthalmia.

IN treating of the inflammations of the openings of the pneumogastric mucous membrane, we shall commence with the external sensitive apparatus.

Inflammation of the Eye.—In the eye the sympathies of inflammation are seen in the most palpable form, and they are divided into organic and those of relation. The transparency of the organ frequently allows us to follow the progress of sub-inflammation when established there, and, *à fortiori*, that of the highest degree of sanguineous inflammation: propagation is there observed in the most ready manner—in short, it is one of the most instructive studies, because it is applicable to internal inflammations.

Inflammation occurs in the external membrane or conjunctiva, when it is known by the name of ophthalmia or conjunctivitis, and may be either acute or chronic. It is also exhibited in the internal membranes of the eye, and may thus be purely membranous, that is to say, occupy the iris alone, the membrane of the anterior chamber, of the lens, of the vitreous humour, of the choroid, or of the retina. It is possible for it to exist in each of these tissues; but this is rare, their contiguity allowing of its ready passage from one to another. It may present itself in a phlegmonous form, occupying and confounding all, and easily recognized by a general sanguineous injection. It may be chronic in each of the membranes, and it is only in that form that it remains for a long time isolated; for when it is acute, its rapidity soon causes it to invade several tissues. For the phlegmon, it also may be chronic, or at least a chronic inflammation

of the cellular tissue of the eye may exist.

All the above are characterized by the four phenomena of inflammation, when it is sufficiently intense.

The causes merit the utmost attention. Generally speaking, I attach great importance to causes: the study of them it is which makes the true savant and the practical physician; by this it is that medical men, of profundity and substantial information, are recognized, while those who neglect them are nothing more than superficial and uncertain practitioners.

At the head of the causes of ocular inflammation are placed external violence, falls, wounds, and surgical operations; those that relate to the function of the organ come next, and I trust that you will shortly arrive at the conviction that the excessive action of a function leads to the inflammation of the organ that performs it. Thus, too strong light will rather inflame the eye than any other organ, than the skin, a mucous membrane, or the cellular tissue, because the eye is made for the light, and receives its immediate stimulation. A forced labour of sight, especially at those periods when sleep is requisite, will irritate the organ. In the torturing amputation of the eyelids, practised among some barbarous nations, the excitation of the eye by light being continual, an excessive ophthalmia is induced, and is propagated to the brain, causing encephalitis. Night work, therefore, is hurtful to the eye, not exactly because artificial light is adverse to it, but because the labour is undertaken at the expense of sleep. Moreover, vapours may exist in the air that are capable of producing inflammation, not only of the mucous membrane of the eye, but also of the throat and other organs; of this kind are the miasms that sometimes rise from marshes, and have no action on the skin, but produce ophthalmia. This inflammation is sometimes caused by irritating gases, by the ammoniacal vapours of water-closets, by the smoke, chlorine, and gaseous acids of laboratories, by the fine dust and sand carried along in the air, by the reverberation of a blazing fire or furnace, as happens in certain

occupations of life. You have also the influence of the other organs, but these are not numerous; that of the stomach, and sometimes of the brain, are the most prominent. As regards the causes of propagation, they are found in those cases where cutaneous phlegmasiæ determine ophthalmia. It is often produced by the inoculation of the pus of an urethritis. In several eruptive phlegmasiæ, such as variola, scarlatina, measles, the inflammation may also be communicated to the eyes.

A peculiar predisposition innate in certain families where inflammations of the eyes are frequent, sometimes favours the action of these different causes. Another predisposition is that which is kept up by a state of habitual superexcitation and plethora in persons who lead an active life, eat and drink freely, and, above all, take great quantities of coffee, brandy, and other spirituous liquors. Occasionally ophthalmia is induced by the suppression of a sanguineous evacuation, especially in women and young girls. Hæmorrhages from the eyes, vicarious of the menses, have even been witnessed—a rare case, however, and of which we shall speak under the head of hæmorrhage. I do not particularize snow as a cause, inasmuch as it refers to the action of light, acting as a strongly reflecting surface to the luminous rays.

In its development this phlegmasia is not ushered in by the general preludes announcing an alteration in the economy; it is manifested without any internal antecedent disorder. The symptoms of it are a sense of heat, of grittiness as from some rough surfaced substance between the eyelids and the ball of the eye, with some degree of itching. The heat rapidly increases, and lachrymation comes on, the tears being acrid, burning, and alkaline. When the inflammation is primarily in the interior of the eye, there is a sense of fullness, heat, and shooting; a small reddish spot or opacity is observed, and the iris is contracted; if more acute, the patient feels the ball as if of fire, a deep seated pain, a lancinating tension, especially when the nervous parts of the organ are affected.

Phlegmon of the eye is rarely primitive, or when it is so it is as a consequence of a blow, of some external violence, or the operation for cataract. It is sometimes accompanied with such an intense congestion that you behold nothing but a sanguineous mass, with the most decided characters of the most violent phlegmasia, as redness, tension, excessive sensibility, &c. Partial phlegmasia of the ocular membranes may transform into phlegmon when there exists a great inflammatory disposition. In this particular there are vast differences in a number of persons attacked with the same inflammation; there are some so predisposed as that their organs are attacked with frightful rapidity, so as to make one believe

the disease in them different from what it is in others; it is the same, however, in fact, and only differs in degree: the approximation of facts, and the study of causes and predispositions will convince you of this truth. What I say here of the eye is found to be exactly the case in internal inflammations, and I have already remarked upon it in the instances of external phlegmasia, such as erysipelas, phlegmon, &c. There are some individuals whom inflammation only, as it were, ruffles, or who resist its violence, whilst it destroys others with astonishing rapidity. It is a phenomenon of infinite degrees, from the most benign to the most outrageous: if you make an entity of each one of them you will only again plunge medicine into chaos; a separation should only be made when a specific cause is observed, to which a specific remedy can be opposed.

But we return to the inflammation of the eye, and behold how it is propagated when once lighted up; from the conjunctiva it may pass to the lachrymal puncta, into the lachrymal sac, and, by the nasal duct, descend to the nose. Sometimes it invades the transparent cornea, which is of a drier and less inflammable temperament than the conjunctiva: it must, however, be exceedingly intense if that occurs. Yet it may go still further, and penetrate within the eye, if not arrested, and if the individual is predisposed, phlegmon is the result—a rare one, I grant, and the more so, because, as I have already remarked, the secretory organs and mucous surfaces have a means of disgoring by the medium of the fluids they give out, by which inflammations are prevented from being propagated within, as they are in turgid tissues and surfaces that have no emunctory. On the other hand, inflammation being first developed in the interior of the eye, may entirely occupy it; but it is scarcely ever seen to pass from thence to the conjunctiva, the sclerotica appearing to act as a barrier against it.

The sympathies are first of all exerted on the muscles of the eye and eye-lids; you see the latter close to preserve the eye from the pain inflicted by the light—a purely instinctive movement, for the will resists it when the irritation is yet slight, but, so soon as it becomes great, the will is powerless. Further on you will observe the parallel between these influences and those that are exercised on the muscles of the splanchnic cavities by the phlegmasia of the viscera. I reiterate the fact, that so long as inflammation is not intense, the will is capable of preventing the semi-instinctive muscles from yielding to the pain; but when excessive, the will loses its power, and we are obliged to contract the organ; this important physiological fact may serve you as a diagnostic means in internal and external pathology. The motor muscles are also forced to act in concert with those

of the eye-lids, in order to turn it from the direction in which the light would come to hurt it. However slight the ophthalmia, the secretion of the lachrymal gland is instantaneously augmented, and if the inflammation increases, the composition of the tears is changed. These are the organic sympathies and the sympathies of relation.

An important influence on the brain is also excited in consequence of the proximity of the eye, and the quantity of nerves and vessels going from one to the other, and affording a ready passage for propagation, so ready, indeed, that intense ophthalmia always place the head in jeopardy of an actual inflammation.

The influence of ophthalmia on the stomach is not well marked, whereas that of gastritis on the conjunctiva is considerable. I have paid great attention to this fact, and have not been able to ascertain that ophthalmia derange the stomach in a special manner; I do not, however, deny it.

On the lungs no influence is excited, unless there be a phlegmon of the eye, in which case, as the cellular tissue of the orbit is implicated, together with the ball of the eye, fever and disturbance of all the functions may supervene, as in other phlegmasia.

You must not calculate on a favourable spontaneous progress in inflammations of the eye. The more we advance in pathology, the more multiplied examples will be found of inflammations that cannot be left to themselves, and against which art must be called in. This is, no doubt, adverse to the old theories about autocratism and the vis medicatrix, but is not therefore less true. Ophthalmia, however, sometimes get well spontaneously, by hæmorrhages that had been suppressed and return; such spontaneous cures are possible, especially in females or young persons having a disposition to epistaxis, but are scarcely ever seen under any other circumstances. Hemorrhoids are rarely critical in inflammations of the eye; nor are they resolved by intestinal evacuations, nor by sweatings. It is only, therefore, in cases where they are the effect of the suppression of an evacuation in youth, when nature readily brings on hæmorrhages that we can expect to see a favourable crisis and spontaneous solution of them. Their progress is not towards a cure, but rather towards disorganization; there is, in the first place, phlegmasia and propagation, then alteration of the tissues, thickening of the membranes, ulceration, rupture, purulent collections, &c.

I return to what most usually occurs in the event of the disease not being extreme; for it is difficult to find instances of ophthalmia not treated, that having proceeded freely to disorganization of the eye. They are generally combatted, and their intensity moderated. The conjunctiva, however, sometimes becomes a purulent fountain, and the inflammation penetrates the eye, takes on a phlegmonous or at least subinflammatory form, and

renders the eye completely opaque, filling it with a caseous or tubercular secretion. It is also possible for the globe of the eye to be converted into a blood-red mass, or to suppurate. Red induration, white induration, opacity of the eye, suppuration—each and all of these terminations is determined by the degree of inflammation and the inflammatory predisposition. But conjunctivitis, even when violent, rarely goes so far; most frequently it confines itself to the production of small abscesses, or when its development is rapid, it shows a puffed border around the cornea, which appears as at the bottom of a vista of swollen, red flesh, that is skirted by the eyelids; this is called *chemosis*. In this case, after some time the cornea itself may become changed into a kind of swollen, injected flesh, and undergo a species of suppuration. It sometimes is pierced, and the aqueous fluid is evacuated; at the same time the iris also sometimes protrudes. In other cases, there is only communication of the inflammation to the membrane of the anterior chamber, where a pus, resembling opaque serosity, forms. If after a certain time no alteration occurs, absorption takes place, and it has only been a minute, extremely limited phlegmasia of the serous membrane.

If the ophthalmia is chronic and has proceeded with less intensity, it does not produce so many disasters, and only gives rise to a swelling of the conjunctiva and cornea, or a varicose state of the capillary vessels. In some cases the cornea becomes entirely opaque, so as to render the passage of visual rays impossible, or to admit only a very few of them. The sensibility of the eye is sometimes so much exalted, that though there is no decided inflammation, light is almost intolerable, the iris contracts, the eye becomes excessively mobile, and the sight is almost annihilated. At other times the inflammation becoming chronic concentrates on the edges of the eyelids, attacks the roots of the eyelashes, fixes itself there, and produces an excess of ceruminous secretion resembling wax. This affection is very obstinate, and is usually only seen with inflammation, in young lymphatic and particularly scrofulous subjects.

Chronicity also appears primarily in the interior of the eye, without being preceded by the acute stage, in consequence of blows, pressure, long continued head-achs, &c. After a few pains, you behold either in the crystalline lens or the vitreous humour, an opaque point, the effect of an actual irritation or subinflammation, a phenomenon of the same order as that which produces tubercles. I have seen this opacity supervene on ophthalmia a great number of times; when it is in the vitreous humour it is whitish, not the whiteness of the opaque crystalline lens, but rather greenish, more deeply situated than it, and unequally distributed throughout the extent of the vi-

treous humour. I have sometimes seen it begin without any preceding violent inflammation, and what I have heard from practised oculists on this point, confirms me in the suspicion I entertained that all the diseases which render the eye opaque are inflammatory phenomena lapsed into subinflammation. One of them told me, "you may work as you please, but there will be no end to it until the eye is completely opaque or softened and absorbed;" which meant to say that an irritation was incessantly in action, and produced a morbid secretion which was a nucleus tending to raise it to the inflammatory state. And this might happen twenty times, if no care were taken to have recourse to antiphlogistics to combat this irritation, until the eye at length becomes again transparent. This is one of the facts that authorize me in telling you that the study of the diseases of this organ is of the first importance, and that it represents the most complicated visceral apparatus.

The name *glaucoma* is applied to the general opacity of the vitreous humour. That of *cataract* is given to the pure and simple opacity of the lens. It is not always possible to detect the circumstances in which it is manifested; it commonly comes with age, without one being able to give a reason for it. Still there must be one, and renewed attention must be paid to detect it; for how is it that some have this opacity and others have it not? There must be a cause, some state of health or some irritation that explains the difference. Sometimes chronic inflammation of the surface of the eye concentrates in one point, especially in one of its angles, and presents a red ulcerated edge, announcing a tendency to cancerous disorganization. In my idea this is always the effect of bad treatment and the reproduction of the causes of inflammation. Thus it is that you should understand it, and not allow irritations to proceed in an absolute and fatal progress towards cancerous, tubercular, encephaloid, and other disorganizations, but observe the modifications effected in these irritations by the numerous agents that are capable of influencing them; you will then almost always perceive that their disorganizing terminations are owing to the renewed action of the old irritating causes, or of new ones, at the time when nature was tending to resolution—a consummation which those causes prevented.

The modifications of the sensibility are very various in these different affections. When the inflammation is acute the sensibility is excessive; and when chronic the same feeling exists in a feebler degree so long as there is no opacity. Sometimes the sensibility of the eye prevents it from exercising its functions, though there is scarcely any inflammation; this is a shade of disease in which the nervous tissue is affected with a predominance. When subinflammation has produced mischief with a determined

hand, no further sensibility of the eye remains, and it becomes a sort of foreign body resembling an indurated gland. As however it still contains a great quantity of nerves and vessels, inflammation is often ready to reappear in it.

What has been said may stand for the necroscopy: for we may see without opening. We pass to the prognosis, which in the first place is drawn from the intensity of the inflammation. Persons may be affected with extremely rapid inflammation, and in certain dispositions of the system, such as those exhibited in eruptive diseases, disorganization is ever imminent. It has also been remarked, that ophthalmiae, following on urethritis, are exceedingly rapid in their progress, and readily suppurate. You must therefore regulate your prognosis of the rapidity of the disease, and the danger of disorganization, not only by the inflammatory aspect of the organ, but also by the concomitant disease, by that which has preceded it, and by the predisposition. When a conjunctivitis becomes chronic, we have to fear disorganization of the membrane and of the transparent cornea, the latter of which may be perforated or externally opaque, or else the inflammation may penetrate internally and be followed by opacity. If there is a suppurative tendency we have everything to fear; if there is only a simple varicose condition, the disease may be endured for a long time, and finally lapse into a lachrymation and an extreme ocular sensitiveness—the latter may be so excessive as to cause contraction of the iris during the day, and vision only at night: this is *nyctalopia*. There is every reason to expect a cure of this neurosis if there is no disorganization, or even if the organ is slightly atrophied without opacity and alteration of the brain; but if the irritation is such as tends to the opacity of the humours, the case is serious, particularly if this irritation resides in the vitreous humour. There is less mischief in the lens, because, being an isolated body encased in other humours, it suffers and changes within a smaller limit, whereas, when the tendency to opacity is in the vitreous humour, which fills almost the whole expanse of the ball, that expanse is the wide limit, and requires a longer period for its entire occupation, during which the patient is always exposed to a fresh start of the ophthalmia towards the acute stage. Add to this, that there is no curative operation for the opacity of the vitreous humour as there is for the crystalline lens.

In the internal parts you have only to consider in the prognosis the state of the stomach, and the suppression of hemorrhages, except in very intense ophthalmia, when the inflammation is propagated to the brain. Should you be called to those who have had the misfortune to lose their eyelids, you must expect the speedy development of a cerebral phlegmasia.

As regards the treatment, we must suppose ourselves in all the positions we have described. If we are aware of the suppression of some sanguineous evacuation, we must first of all recall it, or replace it by bleedings. The point of a suppressed eruption must be treated with the stimulation of a blister or some other irritant. If the ophthalmia is only imminent, or in its first degree, and the action of light is feared, we must order darkness and quietude; the efficacy of this I testified in my own person, when traversing mountains covered with snow, when on my way to Spain, in 1809. Ophthalmia came on, and on arriving in the evening at my lodging, I was located in a house filled with smoke, which quickly added to the activity of the inflammation. It was my duty to start the following morning, and it was therefore essential that I should rid myself of the complaint with as much expedition as possible. I had recourse to the brutal revulsive treatment; I laid on my back, ate nothing, and dropped vinegar into my eyes, from which I suffered horribly: at the same time it obliged me to keep my eyes closed all night, and on the following morning the ophthalmia was reduced, and I was enabled to go on my way. I had previously used this means, or else astringents in incipient ophthalmia. When I was a naval surgeon, I found them successful when the disease was only in the birth, but not when it had reached its fulness. This local stimulation, which is frequently curative when applied à propos, is what I call counter-stimulation, an expression very applicable to the employment of irritants on the irritated spot itself, whereas that of revulsion agrees better with the action of stimulants on some point, other than that which the irritation occupies. Anti-ophthalmic counter-stimulation is produced by means of astringents, vinegar, acetate of lead, sulphate of zinc, or of iron, tannin, &c. But how are we to explain the cure of an incipient ophthalmia by water that is almost at the boiling point? lachrymation follows, and the cure is the result; it is the lachrymation that effects the cure. At other times alum is mixed with white of egg; this is spread on lint, and placed over the eye; such counter-irritation succeeds wonderfully, and it is hard to say at what point the conjunctiva would cease to tolerate such stimulants. But their success depends on an instant, as it does in urethritis similarly treated; they fail when the inflammatory disposition is decided, or the disease is already advanced. Recourse must then be had to antiphlogistics, to bleeding if there is plethora, or threatening congestion of the

brain, and to similar treatment of the gastric passages if they are irritated, or to purgatives if the patient is at the same time plethoric and stercoral. Local bleedings are highly efficacious, but leeches should not be placed on the conjunctiva itself, for I have seen serious consequences, and the loss of the eye itself, ensue upon it. They should be placed around the eye, and in sufficient numbers to obviate the renewal of the inflammation, especially if we have reason to fear the disorganization of the organ. At the same time we order severe diet, purgative clysters, and irritating pediluvia; the eye is bathed with cold astringent collyria, or with ice, if the eye can bear it. If you do all these in quick succession, and without loss of time, and particularly if you repeat the leeches with propriety, you cannot fail to put a stop to the disease. But if you act tardily, or only use slight means, an abscess may form underneath the conjunctiva, or in the cornea, the eye may be perforated, or the inflammation penetrate internally.

Emetics have been advised against ocular phlegmasiæ: but I do not think them advantageous; they cause congestion of the head, and it is better to stay by purgatives.

When ophthalmia has become chronic, we must see whether there is not still an opportunity of using local bleedings that may have been neglected, and then employ topical means according to the state of the eye. If it is very sensitive, we may employ anodyne aqueous collyria with advantage, as those of opium and belladonna. If the susceptibility is not much exalted, and there is a varicose tendency, astringents are preferable, as at the onset of the disease. If the inflammation is fixed in the eye, and tends to disorganize it and render it opaque, as well as to reproduction, we must not only repress it by antiphlogistics as far as possible, and employ mucilaginous, demulcent, and opiate collyria, but also have recourse to issues, blisters, cauteries, moxas, &c., taking care not to be too tardy in using them, and not to exhibit a temporary timidity: many a cure fails from this cause.

An inflammation confined to the eyelids and not acute, is advantageously treated with camphor cerate, as Chaussier used to do. More active ointments of the oxide of lead, of mercury, &c. are used. To these means revulsive ones are added, and a cure is obtained in the majority of instances. For the rest, the success is always proportioned to the intelligence and perseverance with which the antiphlogistic, counter-stimulating, and revulsive treatments, are combined and conducted.

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

By DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho;*

Session 1834-35.

LECTURE XLVI.

*Diseases of the Intestinal Canal developed after
Birth, continued—Tormina—Griping—Colic
—Inward Fits—Flatulence—Flatuosity—
Acidities in the Stomach and Bowels—
Diarrhœa.*

GENTLEMEN—I shall now continue the description of the disorders of the bowels.

Tormina, Gripings, Pinchings in the Bowels, Spasms, Colic, and inward Fits.—These precede or often accompany constipation, but are induced by a multiplicity of other causes. They have been ascribed by the vulgar to the longings, fears, and gripings of women during pregnancy, to the absence of after-pains, or uterine contractions after delivery, as if there were any direct connection between the digestive organs of a pregnant woman and those of her infant after birth; or between the womb of the one, and the bowels of the other. Experience and observation have proved that nothing so disposes to gripings, &c. of infants at the breast, more than their voraciousness which will scarcely allow them to quit the nipple; and this induces them to take too much food, which irritates their stomach and bowels.

Other occasional causes of this disease, are the errors in diet and the mental emotions of wet-nurses. Every experienced practitioner is aware of the fact that salted meats, crude vegetables, cabbages, turnips, parsnips, carrots, salads, &c., unripe fruits, ardent or fermented liquors, brandy, wine, gin, whiskey, rum, &c., ale, porter, &c., in excess, excessive labour or fatigue of any kind, want of rest during the night, as well as moral emotions, including all the passions, fear, terror, jealousy. &c. &c., will injure the breast milk, and this will cause gripings, diarrhœa, jaundice, and even convulsions in infants. It is impossible for women under the influence of these causes to form good chyle, good blood, or healthful breast-milk. We can easily conceive then, that the milk may be of a bad quality, more indigestible, less nourishing, and more irritating than when healthful. Hence the derangements, the flatulence, or wind or gas in the bowels, and above all the acidity in the bowels of infants, evinced by green, brown, white, offensive motions; hence the gripings, "pinchings in the

bowels," and unnatural motions of infants in many cases, though these arise, perhaps as often, from the artificial food which is almost universally given to them. I have already described the errors committed by parents and nurses in feeding infants, and I must once more observe that they are common, indeed almost universal.

These complaints are most frequent during the first four or six months of the infant's life. This is easily accounted for, by the highly sensitive and irritable state of the stomach and bowels of the infant at this period of its age, and by these parts losing their sensibility as the development of the body advances. These spasmodic gripings are only occasional, they cease and are frequently renewed, and cause the infant to cry, and to be deprived of sleep. The abdomen becomes tense, unequally contracted, especially about the navel, as in the colic of adults, which symptom is produced by the contraction of certain portions of the recti muscles, the gas or wind rumbles in different parts of the intestines, excites irritation, spasm, or inflammation, there is constipation or diarrhœa, the motions are greenish and curdled, and often of various colours, and they exhale an odour which practitioners recognize as characteristic of acidity in the primæ viæ, or intestinal canal; or they may be extremely offensive or fœtid. During the violence of the pain, the infant draws up its legs, kicks violently, writhes its body from suffering, the belly is tense and elastic, and if the fore finger or middle of the left hand be placed upon it, and the nail of this be struck with the point of the right fore finger, a hollow tympanitic sound will be heard, which proves there is a quantity of gas in the bowels.

It is erroneously supposed by some practitioners, that the distention of the stomach and intestines with gas is always caused by the infant's swallowing atmospheric air, when it sucks or takes food; but the gas found in the intestinal tube differs from atmospheric air in its chemical properties, and is a secretion. This fact has been attested by continental chemists who collected and analyzed it; and they conclude that it is very different, in different portions of the bowels. When infants die of gripings with distention of the bowels, there is often no trace of inflammation discoverable; and the only morbid appearance is a large collection of gas in the intestines.

Treatment.—When called to cases of this description, we should first examine with care into the cause of the disease, so as to be able to combat it with success and prevent its return. We should therefore ascertain the regimen and habits of the nurse, the constitution, and artificial diet of the infant, as these are, in general, the sources of the gripings and colics of young infants.

We should next apply dry heat to the

stomach and bowels, by means of warm bran, salt, or chamomile flowers placed in a soft flannel bag, and order the abdomen to be rubbed with the warm hand or with flannel. This plan will often afford relief; but should it fail, we should order the infant to be immersed in a warm bath, or the abdomen may be fomented with warm water or a decoction of poppies and chamomile, or rubbed with an anodyne liniment, as the camphorated, with laudanum, in the proportion of an ounce of the one to a drachm of the other; after having relaxed the distention of the stomach and bowels by these means, we should employ proper remedies to evacuate their contents. A tea-spoonful of castor oil, with one drop of oil of anise-seeds and one, two, or three of laudanum will be generally successful. The contractions of the intestines caused by this combination of medicines will often excite a free motion, and the expulsion of gas. An infusion of carraway or coriander seeds, of cinnamon bark, or of other carminatives may be employed to expel the flatulence or gas. A small quantity of some narcotic may be added with advantage, according to the experience of George Armstrong, Underwood, Doublet and many other writers. Opiate clysters are also beneficial, as starch and laudanum. A few drops of tincture of asafetida are also useful when children are subject to repeated attacks of colic or griping. It should also be borne in mind that a long continuance of pain, for example, for three or six hours, in defiance of all remedies, may terminate in inflammation of some portion of the bowels, or in convulsions. It is an axiom in pathology, that temporary or transient pain in any part is characteristic of disordered function, and may in general be relieved by the internal and external use of sedatives, opium, morphia, &c.; but when the pain becomes constant, the skin hot, the pulse rapid, and feverish symptoms are evident, then inflammation is present, and requires blood-letting both general and local. This rule applies to children and adults, and must never be forgotten by medical practitioners. The pain in colic is relieved by pressure, the pain in inflammation of the bowels is aggravated, and the patient cannot bear the slightest touch. The diagnosis of intestinal inflammation has been described in a former lecture, and should be carefully remembered. Some prefer the almond or castor oil, or olive oil, to which others object, on account of the rancidity which they readily acquire in the bowels. I am not quite satisfied that this is a valid objection.

The prevention of the recurrence of this disease consists in removing the causes in the nurse or infant. It will be necessary to regulate the regimen of the first, and render it conformable to the rules of hygiene already laid down; and we should advise aliments capable of furnishing a health-

ful milk, such as is easily digested. The indication of treatment as regards the infant is to improve the digestion by means of mild tonics, such as the infusions of rhubarb, orange-peel, mint, or syrups of quinine, iron, &c. &c. These are to be given at first in very small doses, and gradually increased. They should be sweetened with sugar, honey, treacle, or liquorice, or may be given as lozenges.

Most infants subject to constipation, gripings, and colics, suffer very much from acidity in the first passages or stomach and bowels, and this is best corrected by magnesia, prepared chalk, or crab's eyes, liquor, carb. potass, chalk mixture, lime water, &c. In such cases I order milk to be diluted with lime water, as a common drink, and the other medicines to be made into lozenges. These absorb or neutralize the acids, form neutral salts, which purge the infants. The infant should wear a flannel roller round the abdomen, and its lower extremities ought to be kept warm by woollen clothing. Flatulency is in general only a symptom, but it sometimes becomes a real disease: I shall therefore describe it as such.

Flatulency — Flatuosity — Wind in the Bowels.—This disease is common to delicate infants, who are spoon-fed or dry-nursed, or when the breast-milk is thin or deteriorated. I have repeatedly known infants who were attacked with griping and flatulence after the nurse had taken crude vegetables, and other flatulent foods.

The symptoms are, tension and swelling of the abdomen, with a tympanitic sound on percussion, made in the manner already mentioned, or with a pleximeter, disengagement of gas by the mouth or bowels, restlessness, crying, insomnia, or want of sleep, feebleness, and general languor, which is often so great that the infant is supposed to be dying. The countenance becomes pale, the eye loses its vivacity, the limbs and body emaciate, a diarrhoea succeeds the constipation, the breathing becomes difficult, on account of the distention of the abdomen, which prevents the due expansion of the lungs and descent of the diaphragm, the face becomes livid or black, or swollen, convulsions supervene, and death very speedily puts an end to the scene, unless proper remedies are employed.

The flatulence is generally situated in the large intestines, and is carbonic acid, carbonated or sulphureted hydrogen gas. It is an unfortunate circumstance, that, though we know the kind of gas, we are acquainted with no remedy which can prevent its secretion. The discovery of such a remedy is still a desideratum. We frequently observe sudden distention of the abdomen, with gas, in the last stage of typhus and puerperal fever, and in abdominal inflammations a few hours before their fatal termination; and this, in general, defies all re-

medies, though it may be removed by the introduction of a tube into the bowels, as advised by Dr. O'Beirne.

Women who have the management of children, attribute several diseases to flatulence or wind in the bowels, as hiccup, vomiting, purging, griping, restlessness, crying, and screaming. They exhibit peppermint water, spiritous drinks, cordial waters, as anise-seed, dill, and cinnamon water. These are rendered palatable, and may be mixed with the food. There is great danger in employing peppermint and spirit of any kind, as these are too stimulating to the sensitive stomach of a young infant, will excite irritation or inflammation, and, instead of curing the disease, will, as Heberden quaintly observes, "dispatch the patient." There is no objection to the other mild cordial waters already mentioned. Flatulence is often a symptom of indigestion, and is most effectually prevented by giving some slight tonics with aromatics, such as infusion of rhubarb, orange-peel, &c. sweetened, the carbonate or muriated tincture of iron in white wine, or quinine in white wine, or in the form of lozenges. The diet of the infant should be nutritious, as the animal and vegetable jellies, gravies mixed with arrow root, a mashed mealy potatoe, a fresh egg, good new milk, &c.

The indications of *treatment*, in cases of infants, are to dislodge the gas, and prevent, if possible, its re-accumulation.

To fulfil the first indication, we exhibit some tonic and carminative medicine, as infusion of anise-seed, dill, mint, with a few drops of sulphuric ether, or oil of turpentine. The following prescriptions may be tried in succession, and are generally successful:—

Rx. Aquæ anethi, \bar{z} j;
Sacchari puri, \bar{z} j;
Olei anisi, m. iv—vj;
Magnesiæ cal., $\bar{\Delta}$ j;
Mucilag. acaciæ, \bar{z} iiij;
Liquor. opii sed., m. iij.

Dosis cochleare min. singulis, secundis vel tertiis horis nisi supervenerit somnus.

If this fail, four or six drops of oil of turpentine may be added, or the same quantity of aromatic spirit of ammonia. To increase the effect, frictions with the warm hand or flannel should be made over the stomach, dry heat applied as before mentioned, camphorated spirit or anodyne liniments rubbed on the abdomen, and then warm baths may be tried.

Professor Dewees, of Philadelphia, has employed the following mixture in colic, "with the most decided advantage; it rarely failing to give instant relief, and sometimes effecting an entire cure."

Rx. Magnesiæ calcin. $\bar{\Delta}$ j;
Tincturæ foetidæ, \bar{z} j;
—— opii, m. xx;
Aquæ fontis, \bar{z} j.

Misce.

"Of this twenty drops are to be given when the child is in pain, and if not relieved in half an hour, ten drops more are to be administered. This dose is calculated for an infant from two to four weeks old." The dose must be gradually and cautiously increased at a more advanced age.

According to this learned and experienced writer, there is a form of colic which is distinctly periodical. It generally occurs from four to six o'clock in the afternoon. It does not affect the health of the infant, who thrives with it, nor does the disease appear to be influenced by the diet of the nurse or infant, and in this it differs materially from the first. It continues for three months, and is called by American nurses "the three months' belly-ache." The child is habitually costive. I have never observed this form of disease in this country, and may add, that its treatment is the same as for common colic of infants. Perhaps it is excited by the extreme cold of the evenings in America, after the intense heat of the days—a transition of temperature which must have a powerful effect upon nurses and infants at the breast. Should all the means already mentioned fail, then a gum elastic catheter ought to be introduced into the bowel, and this will allow the escape of the gas, as my able friend, Dr. O'Beirne, has proved by numerous instances of adults. He has not only recorded numerous successful cases in his work "On Defecation," but informed me, since its publication, of examples of strangulated hernia, for which the usual operation was about to be performed, but which he relieved by the introduction of a tube into the lower bowel. I have since repeated the operation on infants with the greatest success, when all other remedies had failed.

When the face is red or livid, the breathing laborious or difficult, and the signs of cerebral congestion prominent, or when convulsions have supervened, the infant should be immersed in a warm bath, a napkin wetted with cold water applied to the scalp, or a small stream of cold water, from a small tea-pot or mug, poured on the head while the bath is being employed, and leeches applied behind the ears and round the base of the skull, in the proportion and with the precautions already stated. A cold spirit lotion should be constantly applied to the abdomen, with a view of assisting the internal medicines in contracting the intestinal canal, and consequently expelling its gaseous and other contents. I have repeatedly observed the best effects result from cold applications in puerperal peritonitis, and this day, in a case to which I was called by my friend, Mr. Hughes, of Holborn. This practice is employed in Germany, but scarcely ever in this country; at least, I have never heard of it.

The second indication is to improve the regimen of the nurse, by advising her to

avoid every description of flatulent food, and to substitute nutritive aliment, as fresh meats, roasted or boiled, with a moderate quantity of wine, porter, &c.

If the infant is dry-nursed, the diet should consist of those aliments recommended on a former occasion, when describing artificial lactation. Under that head will be found a description of the errors usually committed by parents and nurses in feeding children, which are the fertile source of this and a vast number of bowel complaints.

Inward Fits.—This is a term used by nurses when an infant smiles during sleep, and they suppose that this pleasing appearance is caused by flatulence in the bowels. This is a great error, and one that alarms parents most unnecessarily. I know of no such disease as inward fits, and there is not a single writer of authority, on diseases of children, of the present age, with whose work I am acquainted, who is not of my opinion. The term inward fits is ridiculous, according to modern pathology. I should not have noticed this imaginary disease at all, were it not that nurses are constantly talking about it, and therefore young practitioners should know what they mean by it.

It is absurd to suppose that the smiles of an infant are indicative of disease, or to imagine that wind in its bowels is the cause of them. Every infant has more or less air or gas in the bowels, on account of its sucking so rapidly, or taking common food voraciously, for nature has made it ravenous; and also on account of indigestion, constipation, and the intestinal secretion of gases, to which it is liable. Every healthful infant smiles in its sleep, as observant practitioners have noticed, and it is only ignorant nurses, those of the last century, who ever speak of inward fits — “a term,” says Underwood, “they are ever using, but have no precise ideas of, nor do any two of them intend the same thing. It would be better if the term were altogether abolished, and the word fit used only when the child is evidently convulsed.” Nurses often confound what they call inward fits with convulsions, and employ the same remedies in both, as Dalby’s Carminative, Godfrey’s Cordial, soot drops, assafoetida drops, diacodium, or syrup of poppies, which is sold at public houses in large cities, and composed of a large quantity of laudanum, water and some treacle. As these things cause the dislodgement of gas from the bowels, and cure inward fits, they are, according to the experienced commentator on Underwood’s work, Dr. Meriman, “considered the best possible remedies for all kinds of fits, and are given with an unsparing hand in inflammatory attacks, if there be any resemblance, real or supposed, to fits. It is obvious when such remedies are employed at the commencement of true convulsion fits, they must be extremely prejudicial.” There is not the slightest doubt of the accuracy of this statement; and I may

add, that I have repeatedly known numerous instances of infants destroyed by such nostrums. “If the infant,” observes Dr. Underwood, “should sleep too long, and the smiling should often return, it may be taken up, gently tapped on the back, and its stomach and belly well rubbed by the fire, which is all that can be necessary. This gentle exercise will occasion a discharge of wind from its stomach, and the child will go to sleep again quietly.” The author might have added, that the same exercise will cause the expulsion of gas from the stomach and bowels of a healthy infant, either asleep or awake. Popular views of diseases are often very ludicrous. It is a prevalent opinion among the lower classes of the Irish, that when an infant smiles during its sleep, “it is smiling at the angels,” or as one of the national poets has rendered it, when describing the watchings of an affectionate mother, “I knew that the angels were talking to thee.”

Acidities in the Stomach and Bowels of Infants.—The stomach and bowels of infants are exceedingly sensitive at birth, and very readily deranged by every description of food, unless that intended by nature, the mother’s milk, the milk of another woman, or of some few of the domestic animals. Almost all infants are over-fed by nurses, with a view to make them thrive rapidly. The nurse is not satisfied that the infant is abundantly supplied with breast milk, but she thinks it ought to be constantly fed, or rather crammed with artificial food, almost every hour in the day. She gives it water-gruel, pap, panado, patent barley, biscuit powder, and such like substances, combined with milk, and perchance with some spirituous or fermented liquor. She is not aware that three table-spoonsful of food or drink are sufficient to fill its stomach; she goes on until she fills it to the throat, the infant is then pained, it cries and vomits, and then is again over-fed, “as, poor thing, it is hungry,” when the same symptoms reappear. The incessant repetition of this repletion or over feeding irritates the stomach, causes it to secrete a depraved or acid gastric fluid; and this will curdle any farinaceous substance mixed with milk, which will act as an irritating matter, and cause griping, flatulence, a sour smell on the motions, or of the matter vomited. These are the usual symptoms of indigestion, and are accompanied by acid eructations or expulsion of air from the stomach, vomiting, sighing, moaning, peevishness, crying, green and other coloured motions, and drawing up the legs towards the abdomen. These symptoms are invariably caused by too much food, or by that which is indigestible. The various foods just mentioned are improper, and indeed unnatural, for the stomach of a new born infant. They irritate and inflame the stomach, as dissection has amply proved; for if we examine the stomach and intestines

of an infant who has died of the disease under consideration, we either find their internal surfaces as red as scarlet, or some portion of them destroyed by ulceration. If we bear this fact in mind, reflect on the injury that must be done by the exhibition of ardent spirits diluted with water, or mixed with food, in such cases, we cannot be surprised at the immense mortality of young infants, from complaints in the digestive organs, the stomach, and bowels—a fact already attested in a former lecture. Another error of nurses is the free exhibition of sedatives, syrup of poppies, diacodium, Godfrey's Cordial, Dalby's Carminative, &c. &c. in this disease, which stupify the infant, and prevent it from awaking every two or three hours to take a fresh supply of food. The effect of this plan is, that as the absorbents are in constant action, they remove the substance of the body, as a proper supply of chyle, or the material for new blood is not supplied by the digestive organs, and consequently, great emaciation and debility ensue.

Acidity in the first passages or *primæ viæ*, as the stomach and bowels were formerly designated, is so common, that Harris supposed it the great cause of infantile diseases, and that the earths, such as magnesia, the preparations of chalk, crabs' eyes, or prepared oyster-shells, and lozenges of carbonate of soda, were necessary to neutralize it. These, combined with the acid, formed neutral salts, which purged the bowels. In this as well as numerous other doctrines in medicine, the effect is mistaken for the cause. Constant and repeated irritation of the stomach has excited the acidity, and permanent relief will not be afforded unless the diet of the infant is changed and suited to its age.

The first indication of *treatment* is to remove the cause of irritation in the stomach, by changing the infant's food; and the second, to neutralize the acid in the stomach and bowels. The diet having been changed or modified, we first open the bowels, and then administer the class of medicines called absorbents, such as already mentioned.

The best aperient is rhubarb and magnesia, and the dose must be proportioned to the age of the infant. The following mixture is then prescribed with advantage:—

R̄. Liqueur calcis, ℥ ij;
Liquoris potassæ, m. ij—v;
Magnesiæ calcin., ℥ j;
Liquoris opii sedat., m. iij—x;
Olei anisi, m. iv—vj;
Syrupi simplicis, ℥ j.

Dosis, coctheare min. ter quarterve die, ex lactis recentis, vel jusculi bovini semicyatho.

This mixture will neutralize the acid, relieve pain, and expel flatulence from the bowels. It is also effectual in hiccup, griping, and colic. The alterative powders

mentioned for constipation should be given regularly, and the tone of the stomach improved by bitters or tonics, as the infusions of rhubarb, orange-peel, cinnamon, calumbo, syrups of quinine, iron, &c. The diet should consist of the gravies of roast meat, with a smaller proportion of bread, pap, panado, arrow-root, and other farinaceous substances. A small quantity of tent or sherry wine diluted with water, such as a tea-spoonful in half a wine-glassful of water, properly sweetened, may be given two or three times a day, or half a wine-glassful of ale, porter, or stout, with an equal quantity of water, may be allowed as often in twenty-four hours.

The diet of the nurse should also be regulated, so as to improve the quality of her milk. In some cases the warm bath, frictions with the warm hand, or with flannel, on the abdomen, will afford relief, as in the gripings and colics of children, with which this disease is generally complicated.

Dr. Heberden's plan of treatment deserves notice; but it appears to me, he did not sufficiently appreciate the morbid condition of the inner coat of the stomach, when he proposed it.

"The first object is to open the bowels with rhubarb, and then administer seven grains of prepared oyster-shells, or the same quantity of magnesia, or three grains of chamomile flowers, or powdered calumbo root, or ten drops of the liquor of potass, any of which may be combined with some weak bitter infusion." Dr. Smyth, of Matlock, who translated the work from which I quote (1805), adds in a note, "I once saw a child restored to health after the common remedies had failed, by ten grains of chamomile and three grains of ginger, given twice a day."

According to more modern pathology and experience, the mucous or inner coat of the stomach should be free from irritation or inflammation, before bitters could be used with safety.

Diarrhœa—Looseness—Purging.—This disease consists in frequent motions from the bowels, unaccompanied by fever, attended with much griping, and resembling a murmuring noise from flatulence in the abdomen, and frequently by nausea and vomiting. If the disease is severe, the countenance becomes pale or sallow, there is thirst, which gives rise to a craving for cold drink, the tongue is furred, and there is often rapid emaciation.

In some cases a great quantity of yellow fluid feces are discharged, in others the motions are milky, white, chylous, or mucous, or purulent; and in more the food is expelled unchanged. The dejections may vary in number from one to fifty in twenty-four hours. The proximate cause of diarrhœa is increased peristaltic motion of the intestines, and this is readily excited in infants, on account of the extreme sensibility

of the mucous or inner coat of the stomach and bowels. There is a strong sympathy between the digestive and all other organs and parts of the body, and we are not surprised at the numerous disorders in all parts excited by those in the alimentary canal, or stomach and bowels. Numerous direct and indirect causes irritate the intestines, disorder their vital power, and augment their secretions. These are, improper, indigestible, or acrid food, acid fruits, the deranged digestion caused by bad or depraved milk, oily, mucous, or saccharine substances, as fat meat, honey, butter, pastry, acid fruits, both fresh and dried, abuse of purgatives, the repercussion or sudden disappearance of exanthematous eruptions, such as small pox, measles, scarlatina, &c., the application of cold and moisture to the surface of the body, and especially to the feet, suppressing perspiration, and the secretions of the serous and mucous membranes, acidity in the stomach, redundancy of bile, increased secretion of mucus from the mucous follicles of the intestines, worms, erythematic inflammation, retrocession of gout or rheumatism, dentition or teething, diminished action of the absorbents of the intestines, accumulated and hardened fæces, moral affections, as fear, jealousy, anger, &c., which influence the mother, disorder the breast milk, and affect the infant at the breast. Fear or terror also affect children, and cause diarrhœa. This disease is an intestinal catarrh, according to Professor Capuron, an alvine dejection of mucus or serosity, which mixes with the excrements, and renders them more fluid than ordinary.

The disease occurs at every period of early infancy, but generally about the second or third month. This disease is idiopathic or primary, and ought to be distinguished from others of which it is symptomatic, as the species attendant on dentition.

The motions may be feculent, bilious, mucous, chylous, or consist of the unaltered food. The colour of the dejections varies according to the intensity of the disease. They may be yellow, green, white, brown, or black. Indeed, nurses often state, when asked about the colour of the motions, "They are of all colours." It is supposed that green stools are caused by a redundancy of bile. Their consistence also varies. They may be watery, curdy, hardened, "knotty," custard-like, clayey, &c. &c.

The prognosis will depend on the cause, duration of the disease, the frequency or abundance of the motions, and the danger will be proportioned to the strength or feebleness of the constitution of the infant. The disease often causes great sinking of the vital powers, and may be followed by convulsions, anasarca, &c. It has proved fatal in forty-eight hours, though it may continue for several weeks.

The indications of treatment are to calm

the intestinal irritation and to remove the cause of it.

The first thing to be done is to change the diet, and to order bland drinks, such as barley water, rice, milk, beef, veal, or chicken broth, made very weak, by boiling these articles for a few minutes only, the mucilage of gum arabic, &c.; and to administer clysters of this description, with proper doses of opium or morphia. Two thirds of a wine-glassful of mucilage of gum arabic, thin starch, beef, veal, or chicken broth, with three or five drops of laudanum, may be ordered as a clyster for infants under one year old, as in cases of enteritis, ileo-colitis, or recto-colitis. These are, however, seldom employed in this country, until astringent medicines have been administered, and failed. M. Capuron is of opinion that we should never arrest or suppress diarrhœa suddenly, when it has existed for some time, or when it is habitual. I cannot help remarking, that under such circumstances it is not readily suppressed by any remedy; but a severe diarrhœa of one or two days' duration may endanger the life of an infant, and requires to be arrested or suppressed.

It appears to me, after careful reflection on the sensibility of the gastro-intestinal mucous membrane, or inner coat of the stomach and bowels of infants, that simple and non-inflammatory diarrhœa should be always controlled or arrested by proper astringents, with opiates and cordials. The following medicines will in general afford relief, if the diet be changed, and mucilaginous drinks, such as barley water, linseed tea, or gum arabic dissolved in boiling water, be administered at the same time.

Rx. Misturæ cretæ, ʒ iij;
Confectionis arom., ʒj;
Tincturæ catechu, ʒ ij—iv;
—— opii, m. iv—vj;
Olei anisi, m. iv—vj;
Syrupi simplicis, ʒvj.

Sit mistura, cujus sumat infans cochleare parvum, post singulas sedes liquidas, phialâ prius agitâ.

The intention of ordering this combination is this—the chalk or cretaceous mixture is an absorbent and antacid; it is therefore prescribed with the view of neutralizing any acid in the intestinal canal (bowels); the aromatic confection is a cordial and stimulant, which is required on account of the debility frequently induced by diarrhœa; the catechu or kino, which may be used in the same quantity, is an astringent; the opium a sedative, which will relieve pain, irritation, and spasm; the oil of anise-seeds, a carminative, or a medicine which will expel, as its therapeutic name imports, flatulence, as if by a *carmen* or charm; and the simple syrup, which may be replaced by sugar, honey, or liquorice, is added to render the other ingredients palatable.

The following mixture is recommended in strong terms by Professor Dewees:—

Rx. Cretæ preparatæ, 3 ij;
Tincturæ opii, m. xx—xxx;
Sacchari albi, 3 ij;
Olei cinnamomi, gutt. j;
Aquæ fontanæ, 3 ij.

Dosis, cochleare parvum, secundis vel tertiis horis.

In extremely obstinate cases of diarrhœa, which occurred during the prevalence of malignant or blue cholera in 1832, 33, 34, and this year, I prescribed the following mixture with astonishingly good effects:—

Rx. Cupri sulphatis, gr. 1-12th—1-8th;
Syrupi simplicis, 3 iss;
Tincturæ opii, m. x—xx;
Olei anisi, m. iv—vij.

Dosis cochleare min. singulis vel secundis horis; vel post-singulas sedes liquidas, nisi supervenerit somnolentia, aut somnus.

Drs. Armstrong, Underwood, and Capuron advise emetics of ipecacuanha or tartarized antimony in the first instance, with a view of clearing out the stomach of indigestible or improper food. But when we bear in mind the irritation of the stomach, and the inflammatory redness of its mucous or lining coat in certain forms of diarrhœa, we must perceive the impropriety and danger of this plan. The fact is, that Dr. George Armstrong, one of our earliest writers on infantile diseases, supposed that he made a wonderful discovery, in introducing antimonial emetics, not only in the disease under notice, but in those already described, and many others, of the abdomen; and the two succeeding writers, with many others, have blindly adopted his dangerous practice. Modern pathology has, however, shewn its baneful influence, and it is scarcely ever followed at present. It is now proved, beyond the possibility of doubt, that the mucous membrane of the bowels is red or inflamed in some part of its extent, in fatal diarrhœa. and yet it is recommended to irritate the stomach with ipecacuanha or antimony (which is only a portion of the alimentary canal, and one that sympathises most strongly with every part of the remainder of the intestinal tube), to cure diarrhœa. Modern pathology has verified the fact, that gastro-intestinal irritation is the most fertile source of infantile diseases, and that there are few, if any infants free from it.

On examining the bowels after death, they are generally relaxed and inflated, and often inflamed, ulcerated, and their tissues softened, thinned, and easily torn with the finger. There are several intussusceptions, as many as fifty in some cases, the result of spasm. The mucous surface undergoes a variety of morbid changes, as described by Andral, Hope, Billard, and other recent writers on pathology. But in the early stage of diarrhœa there is good reason to believe that irritation of the mucous membrane is the cause of this disease, as a

cure is generally effected by medicines proper for its removal. Then, why order emetics to increase the disease? For my own part, I can see no scientific reason. I believe that opiates and demulcents are the best means to diminish irritation in diarrhœa, and that mild aperients to expel the irritating or morbid contents of the bowels are the next best remedies. The warm bath, anodyne fomentations and embrocations, are valuable adjuvants.

When the infant suffers from flatulence, and foetid or offensive motions, the treatment already described for these diseases should be employed, as the aperients recommended to induce the expulsion of the meconium, to relieve constipation, gripings, and colic. Small doses of calomel are also advisable, to improve the secretions. This medicine may be given in alterative doses, or as recommended by Dr. Joseph Clarke—half a grain rubbed up with sugar, morning and evening. This quantity may be given to an infant only a few days old, and we may order a grain for those of a few weeks or months. Dr. Cheyne thinks small and repeated doses of mercury the most effectual remedy for long continued purging at the period of weaning. I doubt much whether oils ought to be proscribed on account of their disposition to rancidity (Capuron). I have repeatedly ordered castor oil with oil of anise-seeds in this disease; and the result has been most favourable. I am ready to admit that oily or fatty medicines or foods are improper if given freely and for a continuance; but experience does not warrant me to conclude, that a dose or two of castor oil, with a few drops of oil of anise-seeds, can produce bad effects, on account of their tendency to become rancid in the bowels.

Whenever diarrhœa produces great prostration of strength or debility, it is necessary to give nutritious aliment, such as beef tea, arrow-root, sago, tapioca, and other vegetable jellies, rice, milk, toasted flour, boiled with milk, and a small quantity of white wine. If there is vomiting, these substances may be ordered in clysters, with the addition of a few drops of laudanum. Dr. Burns advises us to support the strength with the aliments just mentioned, during the whole course of the disease; but Dr. Dewees objects to the employment of beef tea, when fever is present. He has always found the vegetable jellies much safer.

It will be also advisable to attend to the diet of the nurse, or change her in some cases. Dr. Blundell informs us that sometimes diarrhœa will continue after all remedies had been fairly tried, until the infant is removed into the country, and enjoys a pure air.

After having calmed the irritation of the bowels, and caused the expulsion of offending matters, we should next improve their natural tone by mild tonics, such as rhu-

barb, preparations of iron, and the other strengtheners already advised in other bowel complaints. These are only useful after the employment of the astringents already recommended, to which may be added, extract of catechu, or tormentilla (three grains), and by narcotics, such as the syrup of diacodium (poppies), to the amount of a drachm, wine, tincture, or the sedative solution of opium, in the dose of two or three drops, or a combination of theriac and diascordium.

When there is pain excited by slight pressure on any part of the abdomen, the lower extremities drawn up, the skin hot, the mouth parched with thirst, the tongue dry, red, or glazed, and the pulse rapid, there is enteritis or inflammation, which may be situated in any part of the mucous, muscular or peritoneal coat of the intestine. The disease may terminate in resolution, ulceration, or gangrene. When it terminates in resolution, there is a gradual diminution of the symptoms, and copious evacuation of the bowels. The signs of ulceration are remission of the fever, occasional rigors or shiverings, and a purulent discharge mixed with the dejections or motions. This is a very common disease in children, and generally exists in the remittent fever which is erroneously ascribed to teething or worms, to which they are liable.

Inflammation of the bowels rarely terminates in gangrene in children, though death takes place from ulcerations and perforations in some parts of the intestinal canal, as numerous dissections have verified. Gangrene is characterized in the adult by a sudden cessation of pain when it was at the highest intensity, the patient becoming calm, tranquil, and collected; but the countenance assumes an altered appearance, a cadaverous and livid hue, when hiccup, subsultus tendinum, delirium, or convulsions precede the fatal termination. I have often astonished relatives on declaring patients in the greatest danger, in fact their cases utterly hopeless, on the sudden cessation of pain in enteritis.

The indications of treatment are to allay the inflammatory action in the bowels, and to keep them open. These indications are answered by general and local bleeding, regulated according to the age, extent, and stage of the disease; by warm bath and fomentations, by emollient drinks and clysters, with opium, and by the application of leeches to the abdomen, and about the anus. Mucilaginous drinks, as barley water, linseed infusion, gum arabic dissolved in water, or common cold or iced water may be given freely, and are much desired by children as well as adults. If vomiting is troublesome it should be allayed by the effervescent draught, with a proper quantity of opium. The late Dr. Armstrong, and Mr. Bates, most strongly recommend the free use of opium in abdominal inflammations, both by the mouth and rectum. The French apply sinapisms or blisters to the feet, legs, or thighs, and have

great dependence on leeches applied round the anus.

After the removal of leeches from the abdomen, a mustard fomentation, or warm oil of turpentine should be applied for a minute or two, to excite counter-irritation, and cold lotions may also be used with advantage. When all these means have failed, the only chance that remains is to administer mercury, and induce slight salivation, or affect the gums as speedily as possible.

When infants are affected, there is generally a gelatinous softening of some part of the intestinal tube, and the inflammation may become chronic, and continue for several days or three or four weeks. Examples of this form of the disease are daily presented to our notice by the infantile remittent fever, which sometimes continues for three or four weeks.

There is great danger of a relapse of inflammation of the bowels by the use of improper food or exposure to cold, and due attention to these should be given by medical practitioners. When diarrhœa is caused by purgative medicines, the astringents, with opium, already recommended, are to be employed. If the disease arise from the suppression of cutaneous eruptions, these should be re-induced on the skin by means of warm baths and frictions over the whole surface of the body, and also by the use of diaphoretics. This plan will be also advisable when the disease is caused by exposure to cold, which suppresses the transpiration. But in this form of diarrhœa, baths and pediluvia, the heat of a warm bed, diaphoretic and cordial drinks, will re-establish the suppleness of the skin, and remove the spasmodic contraction of the pores.

It appears to me that some practitioners are in error when they contend, that nutritious diet and moderate stimulation are injurious whenever there is reason to suspect the slightest degree of inflammation; but how often do such means save life in typhus and pulmonary affections of aged persons, though inflammatory symptoms are suspected or even apparent. When an infant is reduced in six or eight hours to the lowest prostration by watery diarrhœa, with sunken countenance and cold extremities, who could think of leeching or bleeding it? stimulation is the plan to be adopted, as will appear by the remarks on the hydrocephaloid disorder caused by diarrhœa.

Lastly, when diarrhœa is caused by the moral emotions of the mother or infant, it will be necessary to establish tranquillity of mind. I have repeatedly known children who were scolded or frightened suddenly discharge the contents of the bowels and bladder; and this fact is well known to those who have the management of infants, and superintend infant schools. Dr. Morrison mentions rather a ridiculous exemplification of this fact. "I had some time back a servant who attended me during some botanical ex-

cursions; he was a confirmed stutterer, and I had occasionally to reprimand him for his giddiness. Each lecture, however, I found acted upon him like a cathartic, and I was obliged, in my own defence, to let him blunder on in his own way." It ought never to be forgotten that the natural sensibility of infancy requires the tenderest cares and most judicious management.

Children who are subject to diarrhœa should be warmly clad, and their legs, thighs, and bodies enveloped in flannel. It is scarcely necessary to observe, that a child affected with diarrhœa or other disease in the bowels should not, through a mistaken kindness, be indulged with improper articles of diet, as fruits, raisins, &c.; nor should parents attempt to cure them, unless when medical advice cannot be obtained, by exhibiting the numerous *infallible* cures published in the newspapers, or recommended by officious nurses and other gossips. When the mouth becomes apthous or affected with thrush, the disease frequently extends along the whole intestinal canal to the anus, and the surrounding parts are often red or excoriated. They should be bathed with solutions of acetate of lead and opium, and great care observed in using clysters. If the infant is often greatly enfeebled by diarrhœa, its feet swell, and it passes less urine than usual, it is threatened with dropsy, and requires the use of diuretics, sweet spirit of nitre, acetate, hydriodate and nitrate of potass, &c.

It may also become drowsy, its face pale, eyes half closed, pupils contracted or dilated, eyelids constantly twinkling or rapidly shutting and opening, and its extremities cold and moist. This state so closely resembles hydrocephalus, that it has been termed hydrocephaloid affection (a disorder like hydrocephalus), and which requires dietetic and medicinal stimulants, as brandy, or aromatic spirit of ammonia, in arrow root, beef tea, &c., with heat to the extremities. This complaint will be more fully described hereafter.

—o—

M. VIREY ON THE GENERATION OF ANIMALS AND PLANTS.

(Continued from p. 32.)

THE instinct which female insects evince in choosing the situations most favourable for the development of their eggs and larvæ, is perhaps the most admirable in their entire history, not only on account of their inconceivable intelligence, but the zeal and attachment they shew for the conservation of their offspring. Thus we see them deposit their eggs in vegetable and animal matters in a state of putrefaction, as in cheese, bacon, and other flesh, meats, &c., as certain species of flies, beetles, &c., from which result these larvæ popularly termed worms, insects, or

maggots; in excrements, in the interior of plants, and principally in the calix of flowers, which become the seat of tumours, as the nut-gall; as on leaves and fruits, as the various butterflies, in the bark and wood of trees, in the skin and flesh of animals. Thus it is for the conservation of the species that the noblest animals become the habitation of insects and of the vilest worms, and that nature sees with the same view the spider mercilessly kill the fly which was imprudent enough to allow itself to be caught in its web, the bug sucks the blood of man, the tender infant of the affectionate and bewailing mother becomes the food of the young of the destructive eagle, the fatal poison of the serpent circulates in the veins of the lion, and he in his turn devours man. What philosophic thoughts spring from these sad considerations. The eloquent and impassioned Virey thus comments upon them. "An afflicting truth daily demonstrates to us that the human race is not more favoured by nature than any other species. In common with the rest of animals, we are exposed to the attacks and insults of a crowd of truly parasitic beings, which feed and fatten on us. Looking on this fact in a philosophical point of view, it leads to a very just conclusion—that we have formed ideas of our own superiority infinitely beyond our real condition, and beyond what is the fact.

"It is the greatest madness in a being who is gnawed by parasitical animals, whose entrails are devoured by worms, to dare pretend that all that exists was made only for him, and for his happiness. This proud master of the earth, this admirer of the heavens, the prey of a miserable insect! How can an individual so frail, a machine so near its nothingness, a being exposed to so much suffering and so many dangers, an animal subject, like all others, to the same laws of nature, how, I say, could he have thought that vast universe was created for his use? Mortal, insignificant, and feeble, who lives an hour on a heap of mud (a dung-hill), humble thyself before the author of nature, for thou art but the food for worms."

It must not be supposed that the illustrious Virey means to insinuate that man is not lord of the creation. He has only expressed the opinion of Pope, in his Essay on Man, when he designates him—

"Great lord of all things, yet the prey of all."

And again:—

"While man exclaims, 'see all things for my use:'

'See man for mine,' replies the pamper'd goose.

And just as short of reason must he fall,
Who thinks all made for one, and not for all:

All are but parts of one stupendous whole,
Whose body Nature is, and God the soul."

SECTION III. — CRUSTACEA—WORMS—MOLLUSCA.—The great analogy which exists between the crustacea, worms and mollusca, enables us to notice these species in one article. Although the function of re-production is less complicated in these than insects, it is replete with facts, which assist us in illustrating the grand and mysterious function of human generation.

The crustacea have been so called from the latin word *crustaceus*, crusty, as these animals are covered with one or more crusts, as oysters, crabs, lobsters, &c. These animals resemble insects in many particulars; but they differ from them by breathing through branchia or gills, in water.

Worms, of which the lumbrici or earth worm is an example, differ from insects, by not having articulated members.

The mollusca, of which the snail is an example, differ from insects in this, that they not only want articulated members, but have regular respiratory organs, divided into spaces. In fine, zoophytes, crustacea, worms, and mollusca, are distinguished from reptiles, fishes, birds, and mammiferæ, in this, that they are deprived of a spine or vertebral column, and are called invertebrated animals. These general observations having been premised, let us now pass to the function of generation in these animals.

Crustacea.—The crustacea are of two sexes, male and female, like insects, and cannot reproduce unless by copulation, and cannot propagate except by eggs. As crabs and lobsters are the most perfect of the crustacea, the history of their generation will, with few exceptions, explain the procreation of all other crustacea.

These enjoy the singular power of reproducing their limbs, when these are separated by accident or violence from their bodies. Thus, the Spaniards cut off their limbs, and throw the dismembered animals into the water, as they know that new ones will be reproduced in a short time. Lobsters acquire a new shell every year, in the month of May, and this becomes perfectly hard in a few days. The female, as in insects, is longer than the male, and both are endowed with a double genital apparatus. The male organs are situated on the thigh of the last pair of claws.

The female has two ovaries like insects, each having a canal (style, pistil, in plants, vagina in animals), which penetrates the middle part of the thigh in two round openings, into which the male places the spermatic fluid, and through which the fecundated eggs escape. The females of the crab have longer tails than the male. Lobsters and crabs copulate in November, December, January, and February, and sometimes, though very rarely, in March.

The eggs of these animals possess the power of transforming themselves into living beings, even when they have been a

long time separated from the body of the mother, and even when they have been dried, by replacing them in water. The crustacea, though warmer than insects, celebrate their amours with greater ardour—a fact attested by fishermen, who have frequently remarked the facility with which they were caught, as regardless of all danger while engaged in the act of generation. It is worthy of remark that the males of the crustacea have two secretory organs for the supply of spermatic fluid (testicles, anthers), and the females two ovaries for the same purpose.

Worms.—The generation of these animals is still very obscure. All these are hermaphrodites; the male and female organs are united and placed in the middle of the body. Nevertheless, they cannot engender without sexual intercourse; but this consists in frictions of the generative organs, and not in intromission. They deposit their eggs on the surface of the earth, where they develope like those of insects.

It has been stated, that the crustacea possess the remarkable faculty of reproducing their limbs (claws) a number of times. But worms possess a power still more remarkable, for if cut into a great number of parts, each of these transforms itself into a perfect worm (lumbricus). These possess both classes of sexual organs, and are not required to generate as other species. We shall observe hereafter, that in man and other animals, irritations of the skin produce perfectly similar sympathetic effects on the generative organs.

Mollusca.—These may be divided into three orders, as regards their reproductive functions.

1. There are some hermaphrodites, as in worms, which cannot propagate without the aid of another individual: such as snails and all the order of gastropedes or those that walk or crawl on the belly. The sexual organs in snails are placed on the right side of the neck. It is by the opening in this part that the excrements of the animal are also expelled, that the eggs pass or are laid, which are deposited on the earth like those of worms.

2. There is another species which have the sexes different, that couple and reproduce like insects. Among these are the cuttle-fish, flying-fish, &c., which are termed *cephalopodes*, from moving with the head forwards.

3. There are mollusca which are perfect hermaphrodites, and can propagate without any copulation—oysters, muscles, &c., those denominated *acephalores*.

We shall see hereafter that there are even some acephalous mammiferæ, that propagate, though entirely deprived of heads.

Thus we observe that perfect hermaphroditism does not exist except among the lowest and feeblest animals, such as are not in a condition to search for an object fitted for reproduction. But this condition is never observed among insects, reptiles, fishes, birds, or the mammiferæ, including the human species, living beings endowed with great in-

nervation or nervous sensibility, and great locomotion and power of action, and always in a condition to make active search for the object which leads to reproduction. Thus we see the great precaution and wisdom of nature in not uniting the two sexes (which indeed would be physiologically impossible) in individuals of a vivid sensibility, which would enjoy every moment of their existence, the means of pleasure and of destruction. There never was a perfect human hermaphrodite, as such a being could not possibly procreate within itself, and would be contrary to the laws of nature.

SECTION IV.—FISHES.—Fishes are generally oviparous; they secrete and deposit their eggs. The females possess ovaries like insects, &c. Some possess the sexual organs separate. These organs are placed on the abdomen, near the tail, which also permit the evacuation of excrementitious matters. It is through this aperture that the male introduces the spermatic fluid, which is denominated the roe or milt. There are some fishes, as the cartilaginous, which copulate like mammiferous animals, and others that deposit the eggs outside the body; and these are impregnated by the addition of the seed of the male. It is even proved that the eggs of some fishes, after being dried, remain fecund when immersed in water; and that those of the pike may be swallowed by birds, be unaltered by their gastric fluid, and after being expelled, still retain the faculty of being transformed into living beings. The fecundity of fishes is perfectly astonishing, some of them containing from one to six hundred thousand eggs. This fact will be fully illustrated in the chapter on fecundity. It shews that nature, ever careful of her children, enables fishes to withstand the wars of insects, crustacea, birds, and even man, by their great fecundity. It is also a remarkable fact, that if fishes be deprived of the male and female organs of generation, and they have been subjected to castration, that in a short time afterwards, their flesh becomes infinitely more delicate and tender. The same fact is observed in plants, birds, and mammiferæ, and even the human constitution is very much changed by castration.

Thus, in proportion as we advance in the study of the generation of animals, we acquire the most striking proofs that all living beings are governed by the same laws, that life is the same in all animated nature, that the phenomena of existence do not differ but by the presence, absence, perfection or defects of certain organs; and that man does not differ essentially from the parasitic insect which he crushes and kills without pity, which, however vile he may suppose, has nevertheless no less incontestible right to nourish itself with his blood, or on the morbid fluids on the external or internal surface of his body, than he has to eat the flesh of the innocent lamb, or the wren which he destroys

with the fatal lead, while performing its delightful maternal cares.

(To be continued).

—o—

Reviews.

A New Practical Formulary of Hospitals of England, Scotland, Ireland, France, Germany, Italy, Spain, Portugal, Sweden, Russia, and America; of MM. Magendie, Lugol, Dupuytren, Alibert, &c. &c.; or a Conspectus of Prescriptions in Medicine, Surgery, and Obstetrics. With the Doses of all new and ordinary Medicines. Translated from the New French Edition of MM. Milne Edwards and P. Vavasour, and considerably augmented. By Michael Ryan, M.D. Member of the Royal College of Physicians in London, &c. Royal 32mo. pp. 572. London: Henderson. 1835.

WE do not intend to review this work farther than insert the translator's preface. The work has already received the most extensive encouragement, and a large portion of the edition is disposed of already.

"This little work is the production of two eminent physicians, Dr. Milne Edwards and Dr. Vavasour. It is a *conspectus* of the best prescriptions of the most celebrated physicians and surgeons in the practice of medicine, surgery, and obstetrics throughout the civilized world. It is a modern UNIVERSAL PHARMACOPEIA, and contains a vast number of new remedies, seldom, if ever, employed in this country, as well as many thousand medicines that have been omitted in our Pharmacopœias. The doses and uses of all are given. It includes every medicine described in the British Pharmacopœias, and in the eighth edition of the celebrated Formulary of M. Magendie, published in March, 1835.

"It possesses other important features unnoticed in our works on *Materia Medica*, with the exceptions of those of Dr. Paris and Dr. A. T. Thomson. These are the rules for prescribing; the explanations of the actions of medicines on the economy; the various modes of administering them; the principles on which they are compounded, for the attainment of the various objects desired; and, lastly, their division into official and magistral or extemporaneous prescriptions.

"It is scarcely necessary to observe, that the multifarious and almost illimitable objects which occupy the mind in the study and practice of medicine, require that the memory should be frequently refreshed, and reference made to the doses, uses, and administration of remedies. A Pocket Remembrancer is therefore indispensably necessary, and this work is the most comprehensive and best hitherto published in this country. It is, in my opinion, infinitely superior to, and more useful than, any other

conspectus of the pharmacopœias, or of prescriptions, in our language. It contains far more important and modern information. The objects of its authors were to unite, in a commodious and portable form, the most efficacious formulæ, and to offer to students and practitioners a chart in which they will find, with facility, the best remedial means. It cannot be expected to find all the prescriptions hitherto published, but choice examples which fulfil the principal objects in therapeutics. The work has been most favourably received in foreign countries, and cannot fail to obtain as great popularity in this kingdom.

"The translation of this work from French into Latin and English, was a troublesome undertaking. The names of many thousand medicines, seldom employed in this country, were given in popular French, and were to be rendered strictly scientific. To effect this, much research was necessary, and a vast deal of reference inevitable, which might have been avoided, were the scientific names given in the original text. It was, however, considered right to give a literal translation in English and Latin. This will account for the simplicity of the directions, as to the doses and modes of administration of medicines. It is also to be recollected that many of the prescriptions were intended for hospital, and not for private practice; and hence, as many as a hundred or more pills, for example, are ordered in one prescription. It is not difficult to proportion the number for private practice; and I make the observation, as many practitioners have requested me to do this in the present form of the work. I need scarcely remark, that were I to comply, I could not be considered a translator, but a condenser of the original text.

"I have verified many of the original statements in my own practice, and placed all my additions in parentheses, so as to distinguish them from the original. I deemed this necessary, because some, perhaps many, would be disposed to doubt the efficacy of some of the formulæ, unless they are attested by a British practitioner. My statements can be confirmed by many intelligent and observant students. I may also add, that Dr. Bardsley, of the Manchester Infirmary, has, in his admirable clinical reports, proved the efficacy of most of the new remedies hereafter mentioned.

"It is to be hoped, that the framers of the London and Edinburgh pharmacopœias, who are now engaged in revising their works, will take a hint from passing events, and no longer leave their codes half a century behind the present state of science. It is but justice to state, that the Dublin Pharmacopœia is far superior to either; but it has been published later.

"Those engaged in actual practice care little about this or that pharmacopœia; they ardently wish to obtain a knowledge of ef-

ficacious remedies, from whatever source. They adopt the Celsian axiom—"Morbos, non eloquentiâ, sed remediis curarii." The Colleges may amuse themselves with Greek and Latin, but these languages, however delightful, will not cure diseases.

"In fine, this little book is calculated to effect much good. It is presented to British practitioners, though augmented and increased in size by the translator, at nearly the same expense as the French edition; and is much cheaper than any other conspectus in the English language. This is only a slight recommendation in its favour; but, when the work is known, it cannot fail to be encouraged."

—o—

A Treatise on Pulmonary Consumption: comprehending an Inquiry into the Causes, Nature, Prevention, and Treatment of Tuberculous and Scrofulous Diseases in general. By James Clark, M.D. F.R.S. Svo. pp. 399. London: Sherwood & Co.

(Continued from page 21.)

CHAP. 3 treats of the *particular symptoms and signs of consumption*. Our author observes, with truth, that the symptoms of consumption vary greatly in different cases, and that there is scarcely one even of the leading symptoms which may not occasionally be absent. It has been asserted that tuberculous disease has in some instances proved fatal almost without any local symptoms.

"This, however," says Dr. Clarke, "is by no means in accordance with my own experience; certainly I have never met with such a case, nor can I easily believe that tuberculous disease of the lungs should run its course without affording sufficient indications of its existence. If cough and expectoration be wanting, we shall find hurried breathing; and if regular hectic be absent, there will still be the rapid pulse, or the frequent chills, the night perspiration, or diarrhoea, and emaciation: more or fewer of these symptoms are always present, and, together with the peculiar cachectic character of the countenance, enable us to detect the real nature and seat of the disease. There will at least be found enough, I believe, in the most obscure cases, to excite the suspicions of the observing practitioner; and when these are once aroused, the *physical signs*, which diseases of the lungs always afford, will soon satisfy him respecting the real nature of the malady."

These remarks we believe to be perfectly just. The fact is, doctors, like other people, are fond of the marvellous, and many would fain add an appendix of *morbi prodigiosi* to

the systems of nosology; to this class all diseases which have no symptoms ought unquestionably to be referred: all we can say upon the subject is, that we never meet with any such maladies; we often encounter symptoms without being able to detect the morbid states on which they depend; but we have never yet been confronted with a morbid state of any important organ, which was not indicated by symptoms of *some kind or other*.

Under the head of particular symptoms of phthisis our author treats of cough—dyspnoea—expectoration—hemoptysis—pain of chest—the pulse— hectic fever—perspiration—thirst—diarrhoea—emaciation—œdema—aphthæ. The following remarks on *gastric and abdominal cough* are highly worthy of attention:—

“*Gastric cough*.—The cough which is next in importance, in a diagnostic point of view, is that which has not inaptly been termed the *stomach cough*. Gastric irritation is frequently attended with cough, not unlike that which accompanies the early stage of tuberculous disease. A little attention, however, will enable us to discriminate them. In general, the cough which attends gastric irritation is louder and harder than the phthisical, and frequently comes on in paroxysms: the source of irritation is felt deep in the epigastric region; and the irritated state of the stomach is generally rendered manifest by other symptoms. The tongue is red at the point and edges, generally furred in the centre, and often dry on waking in the morning; there are thirst, some quickness and a contracted state of the pulse; the extremities are cold during the day, and a preternatural heat of the hands and feet often prevails during the night; the bowels are generally costive, and the urine is high-coloured. These symptoms are frequently accompanied by frontal headache, especially in the evening, and by an irritability of temper unusual in the patient. If he is accustomed to mental occupations, he finds himself less disposed and less able to exert his mind. The expression of his countenance also changes remarkably—he becomes pale and sallow, and his features are fallen: he has the look of ill-health; he feels unwell, and yet, on being questioned, he cannot fix upon any local complaint. This state often continues for a long period, and in many cases without much loss of appetite—a circumstance which tends to deceive the patient respecting the seat and nature of the malady.

“An attentive investigation will generally satisfy us that the disease is seated in the digestive organs, and we shall find that the cough and other symptoms will gradually yield to proper treatment, and the health will

be frequently restored in a very short time, especially if the patient is young. A gentle antiphlogistic treatment, and a strict adherence to a mild diet, will soon show the nature of the disease, by the marked and speedy relief which they afford; and, in truth, will be at once the best test of the accuracy of our diagnosis and the soundness of our pathological views as to the cause of the cough. Even when gastric irritation is complicated with incipient consumption (a very frequent occurrence), our treatment must be directed in the first instance to the cure of the former, as the surest means of enabling us to arrive at a correct knowledge of the patient's condition.

“There is another form of cough which properly belongs to the stomach, as it originates in, and is kept up by, a deranged state of that organ. This cough occurs later in life. It is accompanied by a considerable expectoration of tenacious mucus, which, from its occurring chiefly in the morning, has received the name of ‘morning phlegm.’ It is generally the consequence of too free living, and accompanies the last ten or fifteen years of the gourmand's life: it is easily distinguishable from the tuberculous cough.

“Both these stomach coughs deserve attention, not only on their own account, but more especially when they occur in a tuberculous constitution. The first form of the gastric irritation, when of long duration, greatly favours the formation of the tuberculous diathesis; and may thus prove fatal from its nature being mistaken and its treatment misdirected. The second occasionally masks tuberculous disease, occurring at a more advanced period of life.

“*Abdominal Cough*.—Irritation of the liver and duodenum, intestinal worms, and irritation of the uterus, often give rise to cough. The cough which is present in chlorotic patients, and which is probably dependent on functional derangement of the uterus, may in general be easily distinguished from the phthisical cough, by the other symptoms with which it is associated, and by the facility with which it yields to a mode of treatment which would have little effect in relieving the latter. It must be kept in mind, however, that young females of a tuberculous constitution are the persons most liable to chlorosis, and on this account their cough must not be treated too lightly, nor a prognosis given without circumspection.”

We may further observe, that the cough arising from irritation of the liver is frequently attended with profuse nocturnal sweats, dependent on the same cause; they differ, however, from those of phthisis in not being preceded by any marked febrile stage. We have frequently found these perspirations to disappear almost immediately on the administration of

the blue pill, especially in the minute doses recommended by Dr. Wilson Philip.

On *dyspnœa*, Dr. Clark comments as follows :—

“ This symptom, although never wanting, varies greatly in the degree of its intensity in different cases. In some instances it occurs early in the disease, being among the first circumstances which attract the patient's attention; and it is one of the most constant and remarkable symptoms in the *febrile* form of the disease. When the tuberculous disease makes slow progress, *dyspnœa* is little felt; and in persons who, from their quiet mode of living, use little exercise, it is scarcely noticed even when the frequency of the respiration is nearly doubled. In such cases the oppression in breathing experienced during exertion is very often attributed to debility. Indeed it is by no means uncommon to find the patient unwilling to admit the existence of *dyspnœa* until minutely questioned. Consumptive patients are often jealous of being interrogated respecting any symptom connected with pulmonary disease; and then occasionally conceal symptoms from the physician, who, if he desires to arrive at the truth, must put his questions with great caution, and without appearing to attach importance to them.

“ We shall not, I believe, err far in stating that the degree of *dyspnœa* or hurried respiration (for I class both under the same head) will generally be found proportionate to the extent of the tuberculous disease of the lungs and to the rapidity of its progress. Of a hundred and twenty-three cases reported by M. Louis, three only presented examples of severe *dyspnœa*; and a careful examination of the whole contents of the thorax after death, detected nothing by which to explain it. Congestion of the lungs frequently occurs in persons of a tuberculous constitution, both before and after the formation of tubercles, and may be one cause of *dyspnœa*; and hence we frequently find that an attack of hemoptysis, or venesection, employed to subdue it, relieves both the cough and *dyspnœa* for a considerable time. On the other hand, it not unfrequently happens that the origin of the difficult breathing is dated from an attack of hemoptysis: I have frequently observed this, but am unable to account for it. I here allude to the protracted *dyspnœa*; that which immediately succeeds the attack of hemoptysis most probably depends upon the effusion of blood into the pulmonary tissue, and the consequent compression and obliteration of the air cells to a greater or less extent. We are not yet acquainted with all the causes of *dyspnœa*; one is often to be found in a feeble heart, which, by being easily oppressed, gives rise to it.

“ *Dyspnœa*, therefore, although not much to be relied on as an indication of the very

early stage of consumption, should always be a subject of inquiry; and it will be found, I imagine, more frequently present than is generally believed. It is experienced chiefly during exertion, and as it differs little for some time from the oppression which in a slight degree always accompanies exertion, it seldom attracts attention. Being slow and gradual in its increase, and, like many other morbid states, unattended with pain, it is little noticed until it has become very considerable. But as tuberculous disease of the lungs cannot exist to any extent without more or less *dyspnœa*, the presence of this symptom together with emaciation should induce us to examine the chest with care, even were there no other indications by which consumption might be suspected.”

The practitioner should always judge of the existence and degree of *dyspnœa* from his own observation rather than from the account given by the patient; since persons labouring under phthisis will often declare that they have no difficulty of breathing, when the increased play of the nostril, excited by the smallest exertion, too plainly indicates the contrary.

There is a fact connected with the state of the respiration in phthisis, to account for which might puzzle the physiologist; it is this: in some cases, when the disease is within a few hours of its fatal termination, after the patient has been long harassed by extreme *dyspnœa*, all *consciousness* of difficulty of breathing suddenly ceases, although the respiratory muscles continue in a state of increased action. It might be supposed that the absence of uneasy sensation arose from diminished activity of the circulation; but we have observed it where the heart was acting with great violence, and the pulse was exceedingly full and frequent, as often happens till within a very short time before death. It may possibly be referable to diminished energy of the brain, in consequence of which the uneasy sensation arising from deficient arterialization of the blood is not perceived; and this we think is the most probable solution; it is indeed true, that the phenomenon in question is sometimes observed where the intellectual powers remain, to the last moment of life, in a state of perfect integrity, or even of high exaltation; but we are of that old-fashioned school of physiologists who believe that the *soul* is one thing, and the *brain* another; and hence, that a man may retain a perfect capacity of thought

at a time when *sensation* has become obscured or almost extinct.

The subject of *expectoration* is one to which more importance was attached formerly than the present state of morbid anatomy can concede to it.

"Pus, which was so carefully looked for, and to recognise which so many experiments were made, is now well known to be present when only bronchial disease exists; it does not therefore form an essential character of tuberculous expectoration. But although no physician of the present day would think of relying on the expectorated matter as a test of the nature of the pulmonary affection, still a knowledge of the characters exclusively belonging to the expectoration which accompanies tuberculous disease is interesting. The transparent, frothy, tenacious sputum, though it often indicates the presence of tubercles, is evidently a secretion from the bronchial membrane, and may occur independently of any tuberculous disease. The same may be said of the yellowish-green expectoration, which is often discharged in large quantities in chronic catarrh, and towards the termination of bronchitis; and there is no doubt that the greater part of the expectoration in tuberculous diseases of the lungs is derived from the same source.

"There are two characters, however, which may be considered peculiar to the expectoration attending tuberculous disease: the striated state of the expectorated mass, with a mixture of whitish fragments in it, and the ash-coloured globular masses, which are observed in the more advanced stage of the disease. I have never seen this last form unaccompanied by tuberculous disease; but it has been observed by Chomel and Louis in two cases during the last days of life, where neither tubercles nor tuberculous excavations, nor dilated bronchi were detected after death. The very circumstance, however, of its having been found only in two cases, by such accurate observers, shows how very generally it is connected with tuberculous disease. The different characters of the expectoration already noticed present themselves, for the most part, as has been before stated, in the course of pulmonary consumption. They occurred in all the cases described by Louis, with three exceptions, in which the ash-coloured masses never appeared, the expectoration continuing semi-transparent, or of a slightly yellowish hue, to the last."

The cases in which expectoration is entirely absent throughout the course of the disease are extremely rare; Dr. Clark has met with only one instance of this kind.

"I have only met with one decided case in which the absence of expectoration continued to the last;—on examination, the lungs on

ne side were found converted almost entirely into a mass of tuberculous disease, containing numerous small tuberculous vomices, and one of considerable size: the upper part of the other lung was also tuberculous, and some of the tubercles were softened. The cough in this case was so slight as scarcely to be remarked; but the rapid pulse, the quick breathing, the night-sweats, and emaciation were more than sufficient to indicate the nature of the disease, independently of auscultation, which left no doubt on the mind:—there were, however, circumstances in the case, which, without the assistance of auscultation, would have thrown a shade of obscurity on its nature. In other instances, large excavations are found communicating freely with the bronchi, although, for a considerable period before death, neither cough nor expectoration was present."

Under the head of *physical signs* some judicious observations on the employment of auscultation will be found.

CHAP. 4, on the *Morbid Anatomy of Tuberculous Disease*, contains a judicious abstract of all that is known upon the subject, which, however, has been so amply illustrated by recent and well known authors, that it is unnecessary to enter upon it here.

CHAP. 5 is on the *Cure of Tuberculous Disease of the Lungs*.

"That pulmonary consumption admits of a cure," says our author, "is no longer a matter of doubt; it has been clearly demonstrated by the researches of Laennec and other modern pathologists. 'Pathological anatomy,' says Dr. Carswell, 'has perhaps never afforded more conclusive evidence in proof of the curability of a disease than it has in that of tubercular phthisis.'"

It would perhaps be more correct to say, that where the tuberculous diathesis exists, and has been called into *partial* activity in a limited portion of the lungs, the tuberculous matter may be expelled, and the cavity which it occupied, obliterated.

These however are comparatively rare cases, and the general incurability of pulmonary consumption is a fact attested by melancholy but universal experience.

"In recording these proofs of the curability of pulmonary tubercles, I think it right to remark that I do not attach much importance to them, further than that they afford encouragement to persevere in our endeavours to correct the tuberculous diathesis; seeing that nature can remedy the local disease when it is not very extensive. We must never allow our hopes of such a termination of the disease, nor our endeavours to promote it by local remedies, to divert our attention from

the constitutional treatment. Unless we can correct the constitutional disorder in which local tuberculous disease has its origin, such cure is of little avail, as it is usually succeeded by fresh deposits of tubercles to an extent which renders recovery hopeless. It not unfrequently happens that young persons are attacked with symptoms of phthisis, which, under proper treatment, cease, and years elapse before there is any renewal of the disease. Were advantage taken of the intervening period to correct the tuberculous diathesis, the cure might prove perfect. I have known recoveries from two such attacks, the third proving fatal; the interval between the first and last attack was twelve years.

"The opinion of Laennec on this subject is so important, that I shall cite his words: 'We may indeed say, that the greater number of cases of phthisis are latent at the beginning, since we have seen that nothing is more common than to find numerous milary tubercles in lungs otherwise quite healthy, and in subjects who had never shown symptoms of consumption. On the other hand, from considering the great number of phthisical and other subjects in whom cicatrices are found in the summit of the lungs, I think it is more than probable that hardly any person is carried off by a first attack of phthisis. Since I was first led to adopt this opinion on anatomical grounds, it has frequently appeared quite clear to me, from carefully comparing the history of my patients with the appearances on dissection, that the greater number of those first attacks are mistaken for slight colds, and that others are quite latent, being unaccompanied with either cough or expectoration, or indeed with any symptoms sufficient to impress the memory of the patients themselves.' I am satisfied, from my own observation, that Laennec's opinion is correct. Tuberculous disease of the lungs in early life is, I believe, frequently cured; but it very generally recurs, often at an advanced age, and ultimately proves fatal. The cases of this kind which I have observed have been most frequently in females. While proper measures, therefore, are adopted to abate pulmonary irritation and congestion, our utmost endeavours should be directed to correct the constitutional disorder, as the only sure means of obviating a renewal of tuberculous disease."

(To be continued.)

—o—

LUNATIC ASYLUMS.

To the Editor of the *London Medical and Surgical Journal*.

SIR—The letters of Democritus and Philodemocritus, which have appeared in your *Journal*, the former in the number for Feb. 14th, and the latter in the number for July 11th, of this year, although dictated appar-

ently by the best motives, contain statements which I believe are exaggerated, and propositions which, if acted upon, will certainly do much more injury than benefit to the cause they are intended to advocate. Before, however, I proceed to make any remarks on the letters in question, I wish frankly to state that I am personally interested in the subject to which they refer. My father, Mr. Thos. Bakewell, has kept a private establishment for the reception and cure of lunatics since 1808, and I have been educated with the view of succeeding him in the management of it. At present I am residing with him, and assisting him. Allow me also to express my satisfaction that the subject of the treatment of the insane has attracted your attention, and to assure you I hail with satisfaction the present discussion, hoping that it will be conducted in a candid spirit, and that equal justice will be dealt out to all parties.

It is, Sir, my sincere conviction that instances of rapacity and insensibility on the part of the friends of the insane, are really not so numerous as the representations contained in the letter to Sir R. Peel would lead us to suppose, and that the author of it has painted his picture in rather too dark colours. That circumstances of the character he mentions have occurred in times now happily gone by, there is too abundant evidence in the Reports of the Committee on Mad-houses, which sat in 1815 and 1816, to allow us for a moment to doubt; but I must also express my belief, that since that time great improvement has taken place, and that in no one thing has greater progress been made of late than in the treatment of the insane, in point of both humanity and skill. I think it therefore ungenerous and ill-advised to treat those who employ themselves in the care and cure of the insane in the suspicious and discouraging manner in which it is now so much the fashion to treat them. The severe restrictions and oppressive enactments which have been passed within these few last years might have been justified immediately after the discovery of the horrid abuses which did undoubtedly exist in some asylums (public as well as private); but I contend that they are now uncalled for, and that so great a change for the better has now taken place, that all concerned in this department of practice, especially those who were never guilty of such malpractices, deserve encouragement instead of the odium which is so unjustly heaped upon them.

Whatever abuses may have become known to the writer of the letter to Sir R. Peel, I beg to say, that there are several private establishments to which his animadversions will not apply. I will venture to assert further, that private establishments have been as free from abuse as public ones. If you will refer to the Report on Mad-houses, you will find that instances

of neglect, and of insufficient accommodation, were discovered in public as well as in private institutions. I know, Sir, that there are many others of the same opinion as your contributor—that many, and among them some medical men, think that county asylums would prove a panacea for all the evils attendant on the management of the insane, and that, in fact, all the private asylums should be put down by law. But I beg of such persons to pause awhile, and to examine more minutely into the subject, before they come to such rash and unwise conclusions. Let them look at the comparative success which has attended the treatment pursued in public and private asylums, and they will find, perhaps to their surprise, that the latter bear off the palm. I beg to refer them to a table inserted in Dr. Burrows' "Commentaries on Insanity;" the table in question was published in 1820, and its correctness has never been impugned. It should be premised that the majority of cases received into public institutions being paupers, are most of them of more recent date than those received into private asylums, because the overseers of their respective parishes have no motive for keeping them, and are glad to get rid of them as soon as possible. With even this advantage, it will be found that the highest proportion of cures of which they can boast is as follows:—

	Recent cases.	Old cases.
Glasgow .	50 out of 100	— 13 out of 100
York . .	45 — 100	— 12 — 100

These are the only public establishments in which a distinction is made between recent and old cases, and therefore the only two with which a correct comparison can be made.

The returns of the private asylums are as follows:

	Recent cases.
Laverstork (Dr. Finch's) .	71 out of 100
Droitwich (Mr. Rickett's) .	76 — 100
Spring Vale (Mr. Bakewell's)	84 — 100

	Old cases.
Droitwich (Mr. Rickett's) .	17 out of 100
Spring Vale (Mr. Bakewell's)	35 — 100

Dr. Burrows says that his proportion of cures is 91 out of 100 of the recent cases: the Retreat has a proportion of 86 out of 100 of the recent, and 35 out of 100 of the old cases. It is placed in the list of public asylums, but partakes more of the character of a private one—it is not a *county* asylum.

We have equally the advantage with regard to the health of the patients, and the smaller proportion of deaths. The returns of the Wakefield County Asylum, which is said to be the best in the kingdom, show a proportion of 24 deaths in 100 of the whole number of cases admitted in nine years. The Lancaster Asylum, 24½ in 100 in twelve years; and the Stafford Asylum, 16 in 100 in sixteen years; while the proportion at Spring Vale, since 1808, and in Clapham Re-

treat (Dr. Burrows'), has been not quite 7 in 100. I do not wish, however, in drawing these comparisons, to display a hostile feeling towards county asylums. I merely wish to show that they have no claim to the support and patronage of the public superior to that of private establishments. Confined to their proper sphere, and conducted on different principles to those on which they are at present conducted, they might be the means of doing much good, and should receive my humble support; but they have no right to encroach on the privileges of private practitioners, and to usurp that place, in the estimation of the public, to which they have no lawful claim, and to which private establishments have much greater pretensions. They are in fact by no means the efficient and valuable institutions they are represented to be. They are most of them too large, and, by receiving all classes of patients, contain too many inmates. Stafford, at the time of the last report, contained 201, and Hanwell contains 500! Now, sir, however excellent the design of the building and the internal arrangements may be, so great a number of patients cannot have that free range into the neighbouring country, which conduces more than any other moral means to their recovery, and the building containing them must have more the aspect of a prison than an agreeable residence.

There is another subject on which I am anxious to say a few words. Your contributor, Democritus, says, that "the certificate of a single medical man should not, *as at present*, justify protracted confinement in a madhouse, or being sent to one. Before a step of such paramount importance is concluded, a solemn inquiry should be instituted, and that inquiry should consist of three or five, with powers to decide the question of sanity or insanity; and when insane, whether the individuals so found should be sent to a mad-house, or treated privately." These remarks would lead me to infer that the writer knows nothing of the matter he has written about. It so happens, in the first place, that *two* certificates are now required by the law; and, in the second place, he ought to know, that when the question of insanity is decided in the affirmative, there can be little further doubt as to the propriety of removing the patient from home. Whether the patient shall be removed to private lodgings, or to an establishment, is a question for the friends of the patient to decide, as it is generally one of economy. From the expense attending the proper treatment of lunatics in private lodgings, and the difficulty of procuring suitable servants to take care of them, a private establishment affords, for persons in moderate circumstances, by far the most desirable resource, as regards economy and the means of safety and recovery. But, with regard to the necessity of an inquiry

by three or five persons before a lunatic can be removed from home, the following considerations are worthy of notice:—In the majority of instances, the existence of insanity is evident enough, and cannot require the verdict of three or five persons to remove doubt on the subject; and the fact of insanity existing being clearly ascertained, no time should be lost in placing the patient in the situation most likely to secure his recovery. Now, the holding the solemn inquiry would in itself cause hurtful delay; and, what is worse, would necessarily be attended with so much publicity that many would be deterred from submitting to it, and would, therefore, keep their afflicted friends at home (the worst place in the world for them), until the malady had become so developed as to render the patient's society intolerable, when it would very probably have become incurable. Instead of difficulties like these being thrown in the way of the early removal of the patient from home, every facility should be afforded; care, however, being taken, that the receptacles for the insane be suited to their purpose, and properly conducted. This might be done by other means than the suspicious system now pursued, and recommended to be carried to a still greater extent by your last correspondent, Philo-Democritus. One plan recommended by Dr. Burrows, and, in my opinion, a very good one, is to allow none but medical men to conduct establishments professing to cure insanity, and, of course, allowing recent cases to be placed in none but such establishments. This plan would tend, certainly, to render private houses more respectable, to increase the confidence of the public in them, and consequently to afford greater facilities to the afflicted in procuring a remedy for their complaint.

I would willingly join in the eulogium passed upon Lord Robert Seymour, at the conclusion of the letter. That he is kind-hearted and benevolent, I readily allow; but it may well be questioned, whether it is "devoutly to be hoped that his views may be carried into effect." They are much the same as those of Robert Gordon, Esq., who brought forward a Bill, which is now the law of the land, to regulate the care and treatment of insane persons in England and Wales. In reference to this Bill, Dr. Burrows makes the following severe but just remarks:—

"Certainly," says he, "no measure introduced into Parliament ever betrayed greater want of information, and consequent misconception of a subject;" and again, "If any thing is to be feared that may check the progress of improving the treatment, moral and medical, of the insane, it is these absurd attempts to effect it by legislation. The inevitable consequence is, to disgust honourable and well-educated men, and to deter them from pursuing a branch of the

medical art, in the exercise of which they cannot be free agents, and which degrades them and marks them as unworthy of public confidence." I have only to observe, that I fully concur in these sentiments, and remain, Sir,

Your obedient servant,

SAMUEL G. BAKEWELL, M.D.
Spring Vale, near Stone, Staffordshire,
July 29th, 1835.

—o—

Foreign Medicine.

Objection to the generally received Doctrine of Animal Heat.

THE theory of animal heat leads to the conclusion that the elevation of temperature should accompany the greatest activity of respiration. M. Donne, however, in a paper read before the Société Philomathique, May 1835, remarks that observation proves that the maxima of temperature takes place when sanguification is very deficient. In phthisis, the temperature, instead of being 36 deg. as in the healthy condition, is raised to 40 deg., though the lungs are at the time almost totally destroyed, and the pulse does not exceed eighty-four beats in the minute.

Treatment of Itch.

From numerous experiments made by M. Emery, at the Hôpital St. Louis, the following formula, the base of which is taken from Hafenreffer, used in friction, night and morning, cures the itch in less than a week. Of twelve hundred individuals thus treated, very many were cured in four or five days, others only in ten, twelve in fourteen days. The preparation does not dirty the linen, has no bad odour and is cheap.

Yellow soap	1 oz.
Sea salt	$\frac{1}{2}$ oz.
Sulphur	$\frac{1}{2}$ oz.
Alcohol	1 dram.
Vinegar	2 drams.
Choride of calcium . . .	$\frac{1}{2}$ mix.

This quantity suffices for four frictions.
—*Bull. de Therapeutique.*

Caustic of Chloride of Gold for Cancerous Affections.

M. Recamier has lately been using this preparation in several cases of cancerous affection of the face and cervix uteri. He was led to the use of it by observing a jeweller who had a cancerous fungus on the cheek, which induced him frequently to apply his hand to it at the time when he was employed in forming a solution of gold in aqua regia; the fungus disappeared. M. Recamier paints the surface of the carcinoma as in cauterizing with nitric acid and other liquid caustics. It is made by combining one ounce of nitro-chloric acid with six grains of pure chloride of gold, by which an

aqua regia is obtained with an excess of chloric acid.

The effects are rapid; two applications generally produce marked effects on the cancerous tissue; in one patient that was entirely cured by this means, eight applications sufficed—*Bull. de Therapeutique*.

Constipation—Faces extracted by the Fingers.

A case of this kind is related in the *Gazette des Hopiteaux* of June 1830; it occurred in a lady, and a midwife performed the operation.

This is one of the consequences of the filthy habit so common among French females of resisting the calls of nature, and allowing an accumulation to go on in the bowels until the abdomen is actually visibly enlarged thereby. Any medical man who has resided in Paris a few months, will not have failed to make the same observation.

—o—

The London Medical

AND

Surgical Journal.

Saturday, August 8th, 1835.

INSUFFICIENT REMUNERATION OF MEDICAL PRACTITIONERS.

WHEN the House of Commons was last week in committee on the County Coroner's Bill, Mr. Wakley represented in a forcible manner, the injustice of expecting medical men to perform dissections relating to legal inquiries, without adequate remuneration. Such dissections are often insufferably disgusting to the senses, even of those who are accustomed to anatomical pursuits—they are attended with considerable personal risk to the operator—they frequently consume much time, and always demand the most careful exercise of a practised judgment: add to all this, that the practitioner who conducts such an investigation is to draw from it an opinion whose accuracy involves his own reputation for professional knowledge and sagacity, and it will at once appear evident that he is entitled to the highest remuneration that the state can afford to give him. It is necessary to dwell on such points, because there unfortunately exists in the British public,

an extreme disinclination to recompense medical men for the numerous sacrifices of time, convenience, and health, which they, more than any other class, are expected to make for the good of the community; the profession is respected—deferred to—made much of—everything but *paid*. If, however, the public be wanting in liberality towards the profession, it must be confessed that the latter have in some measure been the cause of this, by an injudicious readiness to give their services *gratis*, or a dishonest pretence at doing so, when they are in reality well paid; thus the physician to a large dispensary undertakes gratuitously a duty which, if *properly fulfilled*, will occupy his whole time and attention, and demand a degree of bodily and mental labour, to which very few men will find the strength of their constitution equal; yet a great many meritorious young physicians toil for years in this unproductive field, ruining their health by the way, and at last discovering, to their bitter disappointment, that dispensaries are not the sure avenues to private practice which they are often supposed to be. Again, the hospital surgeons *pretend* to perform their functions gratuitously, while in reality they are fleecing the students out of some thousands per annum.

That "the labourer is worthy of his hire" is a maxim for which we have the highest possible authority, and it is admitted and acted on with respect to all men except *doctors*. Who ever heard of a judge judging for nothing? or of a parson accepting not a *living* but a *starving*, for the gratuitous cure of souls? Who ever heard of a baker who fed, or a tailor who clothed the public, for ten years, before he began to charge anything, and afterwards did a handsome bit of *gratis* business now and then, just to keep up his character for liberality? Away with such nonsense! Let the medical practitioner be ever ready to yield his gratuitous assistance to

those *individuals* whose afflictions require, but whose means do not enable them to reward it; but we entreat our brethren to unite in their opposition to the *gratuitous humbug* in general. Let young practitioners rest assured that when a man offers his commodity, whatever it may be, for nothing, the conclusion deduced by men unaccustomed to such generosity will invariably be, either that the donor is a fool, or that the gift is not worth the having.

Of all the vocations by which men gain their living, we know of none that detracts so much from the pleasures and comforts of a man's life as medicine—none that entails on him so many anxieties and such heavy responsibilities; and yet, in the present constitution of the profession, the greater number of practitioners are in many cases reduced to toil in private practice for a smaller remuneration than that of the most mechanical labourer, and in the service of public charities, for nothing but the honour of being thought ninnies by those who are so obliging as to accept their charitable endeavours.

For our own part we shall not cease in our exertions to obtain for the private practitioner a legal title to a just emolument—for the medical jurist a reasonable remuneration from the State, in *all* instances where he is required to spend his time and exercise his talents in its service—and for the medical officers of public charities an adequate salary, which shall exempt them on the one hand from the miseries of unrequited and thankless exertion, and, on the other, from all temptation to the hypocritical knavery which extorts from inexperienced youths the remuneration of services ostensibly gratuitous.

—o—

FRENCH OPINIONS ON ENGLISH SURGERY.

IN the last number of the *Medico-Chirurgical Review*, there is an article headed *French Opinions upon English*

Hospital Surgeons and Surgery, in which some notice is taken of an article in this Journal, in which these opinions had been already noticed; and the article in our cotemporary concludes with recommending the Editor of this Journal “to give his reviewer what at Eton and Westminster is technically known under the name of a *bummer*,” in reward, we presume, for his audacity in informing the English professional public what a very eminent foreign surgeon had thought and published of our hospital practitioners. Madame de Stael, we believe, said that the opinion of foreigners might be considered and valued as that of a cotemporaneous posterity. Of course this very just general rule must have an exception wherever our personal friends—especially if we are dependant upon them—are concerned. In their behalf, the daring foreigner who presumes to censure their skill deserves to be kicked, and the reviewer who simply repeats the unfavourable report, must be *bummed*, in the elegant phraseology of our cotemporary! In return for the elegant “*lostum turdum*” observations of the reviewer of our cotemporary upon him of our fraternity, we were at first disposed to indulge our reviewer with the privilege he craved, of *bumming* (*metaphoricé*) the quarterly reviewer in our pages: we must confess we think he was fairly entitled to this indulgence, although we strongly suggested the imprudence of fighting with a sweep; for however the gentleman in such a rencontre may show the greater skill in the manly art of self-defence, he is sure to come off bedirted. But upon recollection, and upon looking at the lusty form of our reviewer, and his powerful arm of flesh, and considering how irritable the writer who *does* for our cotemporary is, where his friends are concerned, and therefore, perhaps, how still more waspish he would be concerning himself, under the castigation of our friend;] and respecting the

probable consequences of an actual encounter, we have interdicted the subject for the present, and our reviewer has agreed to drop the subject. But we will not promise a second time for our own tolerance, or our reviewer's contemptuous silence.

—0—

DEATH OF THE PORTSMOUTH CHOLERA
GAZETTE—APPEAL OF ITS EDITOR.

“Nil de mortuis nisi bonum.”

“When scoundrels, die let knaves bemoan
'em.”—*Brennan.*

SUCH of our readers as have heartily entered into the spirit with which this Journal has been conducted, and may have sympathised with the struggles its Editor has had against the monstrosity called the London Medical and Surgical Journal, published by H. Renshaw, Bookseller, Strand, and the motives which induced him at all hazards to quit the unhallowed connexion with that personage, will excuse our inserting the following paragraphs, which appears appended to a lecture on comparative anatomy by Mr. W. H. Rush, that has been widely circulated among the medical profession.

“Address to the Medical Profession.

“It will be seen by all who read the LONDON MEDICAL AND SURGICAL JOURNAL, published by a MR. RENSHAW, of the Strand, that a Lecture, introductory to the Science of Comparative Anatomy, delivered at the Westminster School of Medicine, has been inserted in the last number (181, vol. vii.) without the name of the Lecturer being affixed. As this Lecture occupies a considerable space of the Journal, and is upon a science extensively cultivated, the omission of the Name of the Lecturer may seem somewhat strange.

“As the Deliverer of the Lecture in question happens to be at the same time part Proprietor of the Journal, and its recognized Editor, he feels aggrieved at the underhanded mode in which Mr. Renshaw prevented his name appearing as the Author of the said Lecture.

“A plain statement of facts, representing the trickery by which Mr. Renshaw accomplished his scheme of suppressing the name of the Lecturer may not be inappropriate, or,

indeed, without some advantage to professional men; especially that portion of them who may be unfortunate enough to have dealings with a Publishing Bookseller.

“It may be in the recollection of the readers of the London Medical and Surgical Journal, that Mr. Renshaw has for some time been carrying on a warfare of opposition, with regard to what has been called his Journal: his opponent being DR. RYAN, who publishes a Journal under a similar title, but which, to all appearance, is destined to outlive the pamphlet of the former*. In consequence of like disputes connected with the dissolution of partnership between Dr. Ryan and Mr. Renshaw, having arisen between the latter and the Author of the Lecture, which is now submitted to the Medical Public in a separate form, he feels called upon to do this, in justice towards himself.

“The facts are these:—Mr. Rush, the author of the Lecture in question, consented to allow it to appear in the Journal upon the condition that his name should be affixed to it as the author. This Mr. Rush considered he had a perfect right to demand, from the fact of his possessing a large portion of the copyright of the Journal: and, indeed, the affair went so far upon this understanding, that the name of Mr. Rush actually appeared affixed to the Lecture in the PROOF SHEET,—but was afterwards, (mark!) before the numbers were struck off, expunged by a *sly trick* of Mr. Renshaw's, who is supposed to have marched most valiantly under the cover of the night, to the Printer's, when he well knew that the author would not be present, to insist upon his right to retain his name to the Lecture, or of withdrawing it altogether from publication in the Journal,—placed his veto upon it, and, both illegally and treacherously ordered the Printer to omit it; his motives for this procedure being simply, that a misunderstanding had occurred a few days prior to this *manly feat* on the side of Mr. Renshaw, with regard to the conducting of the Journal, Mr. Renshaw demanding to *act as sole Editor*. Yes, reader, sole Editor! although not possessing a particle of medical knowledge; and Mr. Rush, notwithstanding this presumption on his (Mr. Renshaw's) part, insisting on having the Journal conducted by a medical man, according to the terms in the articles of agreement.

“On the motives which stimulated Mr. Renshaw to condescend to this piece of double-dealing, Mr. Rush declines commenting, further than to submit, that a bookseller, being at the same time, from *his own confession*, too much engaged with his own trade, cannot be the best Editor in the world for a Medical Journal, which before he meddled with it, had been conducted by a physician of some eminence. The medical profession, it is not doubted, will properly estimate Mr. Ren-

* The pamphlet died on the 25th ult.—Ed.

shaw's interference, in thus surreptitiously withdrawing Mr. Rush's name from the heading of the Lecture. That injury was intended to the professional interests of Mr. Rush must appear plain, and Mr. Rush's motives in publishing this lecture separately are merely to neutralize that evil intention, and at the same time to caution medical men how they place their literary reputation at the mercy of an *Editorial Bookseller*. One word more. Mr. Rush's Lecture is not the first that has suffered from the mutilating propensities of this would-be Editor, to whom the Subscribers to the Medical and Surgical Journal are indebted for the deprivation of a portion of a course of Clinical Lectures by one of our most celebrated physicians, who, justly indignant at this supererogatory meddling, withdrew from the publication his able assistance and support.

"H. W. RUSH.

"1, Everett Street, Russell Square,
"July 20th, 1835."

"Mr. Rush's Reply to Professional Men, who have communicated with him on the subject.

"Since the before-going remarks were sent to press, Mr. Rush has received a number of letters from his professional friends, requesting an explanation from him with regard to the omission of his name from the lecture in question; some having asked him, if he was ashamed of his name being attached, others if the lecture had ever been delivered, and again others, who, knowing in part the *Editorial powers* of Mr. Renshaw, made a pretty shrewd guess, and asked *whether it was* not probable or at all possible, that Mr. Renshaw, by omitting the name of the author, thought that he might have been considered *not only Editor*, and Bookseller, but also *LECTURER*.

"Mr. Rush can only reply, to his numerous professional friends, by repeating the plain facts, which will be found in his public address, and then leave the profession to judge for themselves.

"In conclusion, Mr. Rush begs publicly to acknowledge his grateful thanks to all those professional men, who have taken upon themselves the trouble of enquiring into this trading like transaction, so as to free him from those suppositions, which otherwise might have been injurious to his reputation and character.

"July 21st, 1835."

It would be idle to deny the satisfaction we feel in announcing that the Journal, lately, as it appears, *Edited—Edited!*—by HENRY GRUNDY RENS-
SHAW, BOOKSELLER, STRAND! is at an end. It died of inanition—It never, for the honour of the profession, had the slightest patronage from the reputable

part of it. It had, as a part of a partnership stock, the right to the name under which the Editor of this Journal had originally commenced his weekly labours. It had, what but for the late catastrophe might be called *indomitable* obstinacy, and under all circumstances, it had impudence unparalleled to support it—and it had perhaps no little cash expended, to the great satisfaction of the pastry cooks. Its main ally—the very head and front of the pages edited! and revised! and corrected! by Henry Grundy Renshaw, Bookseller Strand, was a certain Dr. Graves, originally; and we regret to say it, introduced to English notice by us. Rats, they say, leave a sinking ship. How it was that Dr. Graves had not the sagacity of the just named animal, we cannot account for—'Tis true, however, he sank with the rotten hulk—and it will be quite amusing to such as take a fancy in the sport, to watch where it will rise. *Erinensis* is a very good ferret for the destruction of vermin. Perhaps St. George's Hospital is too new a building to be yet infested—at all events it will not be easy to catch him: the moment you are sure, "fond easy man"!—especially if he has promised—beware! a little huckstering, and he is clean escaped. But though Dr. Graves, sportsmanlike, was in at the Death, to vary our metaphor, the whipper-in must not be forgotten—Dr. Stokes once even hunted the pack, and in taking the field, so audible were his sohos and the crack of his whip, that with a good stethoscope you could actually hear him, though still the *craque-mont du cuir* was very dull. He was, however, a good sportsman, and if not a bold rider, must be allowed to have been a good Jockey—we once knew him unhorsed!

We will not further give utterance to our unmeasurable contempt for the whole party whose operations about a year ago are familiar to our readers—we leave our readers to chew the cud of

fancy on the foregoing address, promising that we can feel for any gentleman who has had the misfortune which Mr. Rush seems to have encountered (he should have known better), of experiencing, albeit in a minute degree, the conduct that has led to our emancipation. Little did malignancy expect that it would lead to the independence and flourishing condition which we at present enjoy.

—o—

CASES OF CONSTIPATION.

—

To the Editor of the London Medical and Surgical Journal.

SIR—I beg leave to forward you the two following cases of constipation for insertion in your journal, under the impression that they will be found interesting, not only as in the first thereof shewing the great quantity of various irritating purgatives that may be given under certain circumstances without any inflammatory effects ensuing, as we are naturally led to believe would occur alone from so long a constipation, but more so when conjoined with such active treatment as was employed to evacuate the contents of the intestines. Your constant subscriber,

HENRY BIRD.

15, Southampton Terrace,
Kentish Town.
July 28th, 1835.

M. P., aged 30, residing at Kentish Town, was seized in the night of the 27th March, 1834, with violent pains in the abdomen, for which I was called up to visit her. I found her screaming violently, although the pain experienced upon pressure was trifling, great fulness of the abdomen, head-ach, hiccup, nausea, and bilious vomiting; pulse 76, weak; tongue covered with a thick brown fur, and very dry; bowels had not acted for fourteen days. Warm fomentations to the abdomen.

Rx. Hydr. submur. gr. vj;
Pulv. opii. gr. j.

Fiat pilula statim sumenda.

Rx. Infus. sennæ, ℥ iij;
Magnes. sulph. ℥ j;
Spt. ammon. ar. ℥ ss;
T. jalapæ, ℥ ij.

Misce.

Fiat haustus semihorâ port pilulam sumendus et quartis horis repetendus.

9 A.M. Pain abated, but no evacuation.

Rx. Ext. coloc. co. ℥ ij;
Magnes. sulph. ℥ ij;
Decoc. hordei, O ij.

Fiat enema stat injiciendum.

This passed very readily, and remained about twenty minutes, returning unaccom-

panied with any fæcal matter; vomiting increased, in other respects much the same. I was now informed she occasionally indulged in copious potations of gin, and as she was very bilious, I ordered as follows:—

Rx. Hydr. submur. g. x.

In pilulæ ij, secundâ horâ sumend.

Rept. enema post horas tres si opus sit.

1 P.M. Much the same—no stool—pain returned. Mustard sinapism: she continued in this state until 9 P.M., having taken ℥ j of calomel.

Rx. Ol. croton. m. iij;

Micæ panis, gr. iv.

Fiat pil statim sumend et rept secundâ horâ donec alv. respond.

28th.—8 A.M. Has taken fifteen minims of the oil without the least relief; I made an examination per rectum, which was perfectly free from scybalæ.

Rept. enema adde ol. croton. m. vj.

10. No stool—pain severe.

Rx. Ext. elaterii, gr. xij;

Ext. coloc. co. ℥ j;

Ol. carui, m. vj.

Fiat pilulæ, vj, cap. i, singulis horis.

6 P.M. Has taken all the pills, but all of no avail—great febrile heat over body—clammy perspirations over face—violent head-ach. Pulse 84, weak.

Rx. Aloes socot. gr. v;

Acid. sulph. gtt. j.

Fiat pilul. cap ij, singulâ horâ.

10 P.M. Has taken four doses of the pills; the bowels have just acted most copiously, and very quick in succession; she was up and about in two days more, not being attacked with any inflammatory symptoms; as I had reason to fear. She says she has been subject to these attacks for some years past, and being an obstinate woman, she will not try to prevent the recurrence of them. I have since this attended her three or four times, and found the latter form of pill speedily procure a stool.

Robert Luck, butcher, aged 35, full habit of body—had not passed a stool for eight days when he procured a letter to an hospital, and was made an out patient thereof; the physician, for some cause or other, ordered him to be cupped on the loins, and gave him some colocynth pills, requesting him to come again that day week (Thursday): the man's bowels however did not act, his pills were all gone, and he remained in statu quo, without evacuation, medicine, or advice. Sunday he was unable to rise from his bed, when a gentleman called and related the case to me. What! I thought, is this the boasted charity of the British country? the well regulated public hospitals? to leave a man for seven days longer with a constipation of eight days previous, without knowing or caring one jot whether the man was relieved or not, or whether the medicine had produced the desired effect.

Sunday, July 12th.—11 A. M. I found him turning and tossing in bed, retching violently without expelling any thing from the stomach, breathing oppressed, great nervous irritability, head-ach, pulse 96, full, tongue furred and brown, great heat, violent pain on pressure.

Venæ sectio, ζ xvj. (Mustard cataplasm).

R. Hydr. submur. gr. vj;
Pulv. opii, gr. i.

Fiat pil. stat. sumend.

R. Haust effervesc. ad libitum.

R. Ol. ricini, ζ ij;
Aq. puræ, Oij.

Fiat enema.

2 P. M. No stool, pain much relieved, blood buffed and cupped, nausea diminished, pulse 80, compressible. Pt. pil. cal. secundis horis.

10 P. M. No stool. Pt. enema et pil.

Monday the 13th. 6 A. M. Passed a very bad night and no stool.

R. Ol. croton. m. iv, statim sumend.

10 A. M. All of no avail, pain very urgent on pressure.

R. Aloes soc. gr. v;
Acid. sulph. gtt. i.

Fiat pil. cap ij, singulâ horâ.

I was unexpectedly called down to Oxford, and was obliged to procure the assistance of a friend, who informs me that after he had taken four doses of the pills, the bowels acted freely. He ordered him also

Hirudines xij, abdomini.

Tuesday—3 P. M. I saw him on my return: he is now labouring under an attack of inflammation.

Hirudines xx. Empl. lyttæ postea.

Pt. enema ut supra.

In the course of a week he was able to walk out, and is now quite convalescent.

This latter case shews the peculiar idiosyncrasy of constitution; he was an abstemious man; the purgatives employed were not near so active as in the former case, but my experience leads me to believe, that in persons where the liver becomes affected from the abuse of ardent spirits, inflammation more rarely occurs after constipation, and the irritating means sometimes necessary for the relief thereof, than, under contrary circumstances, and that in all cases of inflammation of any organ or part coupled with such hardened state of liver, the treatment necessary is more active and uncertain.

I have had several cases of constipation for seven or eight days, and the relief obtained by the aloes when conjoined to the acid has been very speedy, even after the other cathartics have failed. Why the acid should increase its action I am at a loss to account for, although I am fully satisfied that such is the case.

DISEASES OF THE GENITO-URINARY ORGANS.

(Continued from page 16.)

Treatment of Permanent Stricture of the Urethra.—Though stricture of the urethra must have occurred in the earliest ages, the first allusion to it in the writings of the primitive physicians is, according to my researches, to be found in the works of Gallen. In describing the causes of retention of urine, he includes compression of the neck of the bladder, and carnosities in the urethra, which required the use of the sound for their removal*.

A Spanish physician, named Aldareto, who was Professor at Salamanca, was said to have been the inventor of bougies, and taught their use to Amatus, of Portugal†, who introduced them into practice. Others held that Phillipus, a Portuguese empiric, was the real inventor; but this is extremely improbable. Andrea Laguna, or Lacuna, of Sevogovia, employed them very much in 1551, as also did Alphonso Ferri at the same time. This writer maintains that bougies were known to the Greek, Alexander, whom Astruc contends, resided at Tralles, or Trallia. Vega followed in 1552. Diaz recommended caustics, and, according to Amatus, also metallic bougies.

Fabricius described bougies made of horn, which were to be softened in warm water before their use. The next instrument of this kind was made of fine silver wire turned spirally. In 1603, Henry the Fourth, of France, was cut for a caruncle, by Mayerne; but, as this method failed, Layseau was consulted, and he used an escharotic bougie, composed of different ingredients, among which was powdered saving‡. Bougies of various sorts were generally used, until the time of Mr. Hunter, when he concluded that the destruction of the obstacle by caustic was the best way of removing it; first, he introduced a canula down to the stricture, and in this was concealed a stilet with a piece of nitrate of silver at the end of it. He then proposed to fix a piece of caustic at the end of a wax bougie, and this he called the "armed bougie." His nephew, Sir E. Home, strongly recommended this instrument; and it has been much used in this country for the last forty years. It is, however, liable to fatal

* De Loc. Affect. c. 1, and De Compos. Med. l. 3.

† Amat. Lusitan. cent. iv. 154I.

‡ F. Roncalli applied the lapis infernalis by means of a tube, in the commencement of the eighteenth century. Exercitatio agens novum Methodum extirpandi Carunculas et curandi fistulas urethræ. Brixia, 1720.

objections, as will appear hereafter. Mr. Whately proposed caustic potass instead of nitrate of silver. In using either instrument, however dexterously used, the healthful part of the urethra was cauterized, the mucosity of the canal loosened the caustic, which often fell into the urethra, and of course destroyed all parts with which it came in contact.

The canula and stilet proposed by Mr. Hunter, served as a model for the instruments of Petit and Delpech, which were a cylinder of nitrate of silver solidly fixed in a gum elastic sound, and uncovered at the anterior extremity, with a layer of tallow on its sides, to prevent it acting on the sound surface of the urethra. This was passed without a conductor, and was nearly as objectionable as the armed bougie. Civiale proposed a conductor, and his instrument is very similar to Ducamp's. Lallemand at first passed an armed bougie through a gum elastic sound. All these contrivances could act on the anterior part of the stricture only, often cauterized healthful structure, and required to be re-applied several times. False passages were frequently made, and Delpech described a case in which the bougie passed into the rectum. By this plan we can only act on the centre of the stricture, while a superior mode is to cauterize the apex, and gradually descend to the base of the stricture. An instrument for this purpose is now happily used.

In 1822, the Academy of Sciences, of Paris, proposed for a prize essay, "A treatise on retention of urine caused by contractions of the urethra, and the means by which such obstructions of the canal could be completely destroyed." The successful essayist was M. Ducamp, who, after a most scientific and graphic description of the causes and pathology of stricture, proposed an instrument for its complete destruction. This he called a *port caustique*. It consists of a flexible catheter, about eight inches in length, which contains a stilet, the end of which is composed of platina or gold, into the side of which the nitrate of silver is fused with the flame of a candle.

The superior advantage of this instrument is, that it enables us to apply caustic with ease and certainty to the stricture only, and there is no danger of the escharotic falling into the urethra or touching the sound part of the canal. No matter whether the stricture is superiorly, inferiorly, laterally, or encircling the urethra, this instrument can be applied, because the inner tube or stilet, in whose side the caustic is permanently fixed by fusion, is so small as to pass into the opening of a stricture or against the projection of it, beyond the end of the outer tube. The caustic is applied for about a minute, produces very little pain, and causes no discharge. On the next day the patient passes urine in a fuller stream, with less force and pain, provided there is no other stric-

ture. By this method there is no hæmorrhage, no false passage, no retention of urine. The slough comes away on the second day; the operation is repeated on the third, and reiterated until a bougie of No. 6 can be used, when the cure is completed by one which is termed a bellied bougie.

When the stricture is situated five and a half or six inches from the orifice, it is difficult and perhaps impossible to reach it with a straight instrument. To obviate this, M. Lallemand has invented a curved *port caustique*. His plan is to pass a larger instrument every time, and thereby to facilitate the cure. But straight instruments are now easily passed into the bladder by lithotritists.

The instruments of M. Ducamp are modified by Mr. Benjamin Phillips, who has kindly allowed me to illustrate his improvements; the plates of which will appear in our next number.

Mr. Phillips has, however, found in several cases that the slightest application of the caustic as a stimulant, and not as an escharotic, is sufficient to facilitate the absorption of a stricture by means of the white flexible metallic bougie, and he assures me that he generally succeeds in removing stricture with this instrument. I can bear testimony to this statement. In fact, Mr. Phillips is of opinion that the free use of caustic is very rarely necessary; but it ought to be applied by means of the *port caustique*. This instrument is now generally used in France, and also by Mr. Costello in this country.

The discovery of this instrument has given rise to a controversy as to the inventor. The French award that merit to M. Ducamp, and the English to Dr. Arnott. The proofs in favour of the latter are offered by his brother, Dr. Arnott, the celebrated author of the *Elements of Physics*, on whose statements the fullest confidence must be placed. I shall quote his statement, to which is prefixed a short account of the nature and treatment, which is so plain that every one may and can comprehend it. I extract it from his *Elements of Physics*. It is as follows:—

"Obstructions in the urethra are generally consequences of an inflammation, which has destroyed the dilatibility of a part of the canal. They appear as if a thread, or a bit of tape were tied round it, so as to narrow its calibre.

"Constant irritation, often destroying the general health, fits of fever, broken rest, and even death from total suppression, have been common consequences of this deplorable disease.

"Until within a recent period, the treatment of such obstructions was pursued very generally, according to a blind routine.

"They were attempted either to be bored open by wedges, called bougies, often of doubtful and tedious operation, or to be destroyed by caustic passed down to them in

the end of a bougie, which caustic often hurt the anterior part of the canal, or ate out false passages about the stricture, or opened blood-vessels, and caused dangerous hemorrhage.

"Struck by the defective state of this branch of the healing art, the author had bestowed considerable attention upon it during the years of practice which he spent abroad, and he then contrived and tried several new means of relief.

"These were afterwards brought more extensively into use and improved, and others were added, by his brother, Dr. James Arnott, superintendant surgeon in the service of the Honourable East India Company, who gave a minute account of them in a Treatise on Urethral Diseases, and a supplement, published in the years 1818 and 1820. They have become, perhaps, still better known in France than England, through the work of Dr. Ducamp, which described them; and which, having been submitted to the French Institute, and most favourably reported upon by the appointed examiners, soon became a standard treatise: in France, also, the philosophy of mechanics has been more studied than generally by English surgeons. It is painful to be obliged to add here, that Dr. Ducamp concealed the fact as regarded these instruments, and the views of disease and treatment which suggested them, of his being only a translator. The imposition was not discovered at the time of his death, which

appened two years afterwards, hastened apparently by the fatigues of practice, which the report of the Academy brought upon him. The author has had so much pleasing intercourse with enlightened and honourable Frenchmen, that he grieves to have this fact to relate.

"The objects aimed at by the new means, were to ascertain the exact condition of the diseased canal, to facilitate the passing of instruments in cases of difficulty, and to effect a permanent cure.

"The following seven means may be particularized:—

"1st. An examining sound: being a bougie, with the point formed of a softer tenacious material, in which fibres of cotton or silk are mixed to prevent any portion from being broken off or detached during use. This sound pressed against the obstruction, takes a correct impression of its anterior face, and shows the magnitude and exact position of the remaining opening.

"2nd. An expanding or dilator sound, which is a small tube with a dilatable button at its extremity. The button consists of a little bag, empty while it is passing through the stricture, and filled with fluid when it has reached beyond it.

"It readily discovers any other strictures beyond the first, and the state of each.

"3rd. A conducting canula or tube, open at both ends.

"It is passed down to the stricture, for the purpose of supporting and directing small bougies seeking entrance through very narrow strictures, or of guarding the caustic bougie in its approach to the place of its action.

"4th. In cases where the attempt to open the passage has failed by all common means, a conducting tube is first introduced, and, through it, six or more small bougies are then passed side by side, so as to probe the whole face of the stricture at the same time.

"It is thus scarcely possible that the opening should not be found.

"5th. Were even this means to fail, the conducting tube may be filled with water, under any degree of pressure; which water will either open the passage for the small bougies, or will itself act as the sharpest and most insinuating of all instruments. The stricture, by whichever means opened, will then allow the urine to escape.

"As patients might fear that the water forced towards a bladder already too full, would only increase the evil, Dr. J. Arnott waited for more numerous proofs of the utility and safety of the practice, before strongly recommending it. Dr. Amussat, of Paris, has lately published a statement of numerous cases of retention thus relieved.

To be continued.)

—o—

MEDICAL BOTANY.

(PLATE III.—THE AMYGDALIS COMMUNIS.

Amygdalus communis, Wild. g. 981; Spr. 1815. *Icosandria Monogynia*. *Nat. Ord.*—*Pomaceæ*, Lin. *Rosaceæ*, *Sect. Drupeæ*, Juss.

Sweet almonds are of greater use in food than in medicine, but they are reckoned to afford little nourishment; and when eaten in substance are not easy of digestion, unless thoroughly comminuted. They are supposed, on account of their unctuous quality, to soften acrimonious juices in the primæviæ. Peeled sweet almonds, eaten six or eight at a time, sometimes give present relief in the heart-burn.

On triturating almonds with water, the oil and water unite together, by the mediation of the albuminous matter of the kernel, and form a bland milky liquor, called an emulsion, which may be given freely in acute or inflammatory disorders. As the bitter almond imparts its peculiar taste when treated in this way, the sweet almonds alone are employed in making emulsions.

Several unctuous and resinous substances, of themselves not miscible with water, may, by trituration with almonds, be easily mixed with it into the form of an emulsion, and are thus excellently fitted for medicinal use. In this form camphor, and the

resinous purgatives, may be commodiously taken.

Almond oil is supposed to blunt acrimonious humours, and to soften and relax the solids: hence its use internally in tickling coughs, heat of urine, pains and inflammations; and externally in tensions and rigidity of particular parts. The flour from which almond oil has been expressed is in common use as a cosmetic soap.

Bitter almonds have been found poisonous to dogs and smaller animals. Nevertheless, bitter almonds are every day used in cookery, on account of their agreeable flavour; but there are some constitutions in which the smallest quantity produces urticaria, and other unpleasant symptoms. The medicinal use of bitter almonds is of very ancient date. Bergius revived their administration in ague. Hufeland also asserts, that when eaten freely for several weeks, tape-worms were expelled, which have resisted every other remedy. In several of the foreign pharmacopœias there is a formulæ for water of bitter almonds, which in every respect coincides with cherry laural water. The oil of bitter almonds is extensively used by compounders of liqueur, for making noyau and ratafia, though its effects are well known to be very deleterious.

—o—

Case of Cholera—Fatal termination in less than Seventeen Hours. By J. C. Atkinson, Esq., M.R.C.S. and Licentiate of the Apothecaries' Company.

Mrs. T., aged 25, of a leucophlegmatic habit, slender, married about four months, residing at —, Westminster, was seized, about three o'clock, P.M., on Tuesday, the 28th inst., with violent cramps in the abdomen, having been relaxed for the four preceding days. I was requested to see her between seven and eight o'clock, and found her labouring under severe spasms in the bowels, more especially in the region of the liver, but not in the upper or lower extremities. There was severe vomiting of a yellowish fluid, with a small quantity of mucus, and profuse diarrhœa, with thin yellow dejections mixed with dark-coloured scybala. The pulse was small, frequent, and easily arrested, ranging between 120 and 130; the respiration frequent; temperature of the body very much reduced; extremities cold and covered with clammy perspirations. There was no lividity nor shrivelled appearance on the skin: the voice was altered—it was low and whispering: the tongue was cold, and so also was the breath.

The medicines employed were antispasmodics, ether, opium, camphor, &c., and the astringents, a strong decoction of hæmatoxylium, and one grain of calomel every ten minutes, as recommended by Dr. Ayre. Two table-spoonsful of muriate of soda in

a tumbler of water were given as an emetic, and were followed by re-action.

Notwithstanding all remedies, she expired on Wednesday morning at a quarter to eight o'clock, in less than seventeen hours from the commencement of the disease.

It appears to me that this case was different from diarrhœa or English cholera, as it was characterised by different symptoms, and that it was perhaps a modified form of the more fatal epidemic cholera. It is well known that the latter disease was often preceded by diarrhœa, and not invariably attended with blueness or rice-coloured evacuations. The case, at all events, appears to me to be worthy of record, on account of its sudden and fatal termination.

Westminster, July 29, 1835.

—o—

BOOKS.

Practical Observations on the Nature and Treatment of Nervous Diseases; with Remarks on the Efficacy of Strychnine in the more Obstinate Cases. By George Russell Mart, Member of the Royal College of Surgeons in London, &c. 12mo. pp. 185. London, 1835. Churchill.

Stammering Considered with Reference to its Cure, by the application of those Laws which regulate Utterance. In a Letter addressed to George Birkbeck, M.D., F.G.S., &c. By Richard Cull. 8vo. pp. 50. London, 1835. Renshaw.

An Essay on Insanity. Translated from the Author's Inaugural Dissertation composed on that subject, and submitted to the Faculty of Medicine in Edinburgh, preparatory to receiving the degree of M.D. By Samuel Glover Bakewell, M.D.

Remarks on the Trial of Robert Reid, for the Murder of his Wife, before the High Court of Justiciary, at Edinburgh, on the 29th of June, 1835. By John Fletcher, M.D., F.R.C.S.E., Lecturer on Physiology, and on Medical Jurisprudence. 8vo. pp. 55. Edinburgh, 1835. Carfrae and Son.

This is a most important pamphlet, which reflects the greatest credit on the ability and scientific acquirements of the author. We shall notice it fully in our next.

Anatomy of the Nerves and Vessels of the Head, Neck, and Chest, intended as a Guide for the Student in his Dissection of those parts. By Edward Cock, Demonstrator of Anatomy at Guy's Hospital.

CORRESPONDENTS.

Dr. Alexander, of Macclesfield.—The communication is under consideration.

A Student.—The new regulations do not come into operation until October.

An Enemy to Dispensaries as now regulated. —We shall attend to the suggestion.

A.—The Coroners' Bill was thrown out a few days ago.

An Hospital Reporter.—We shall not insert ordinary cases. Those of every-day occurrence are not of sufficient interest.

THE

London Medical and Surgical Journal.

No. 185.

SATURDAY, AUGUST 15, 1835.

VOL. VIII.

REMARKS

ON THE

TRIAL OF ROBERT REID,

FOR THE MURDER OF HIS WIFE,

BEFORE THE HIGH COURT OF JUSTICIARY,
AT EDINBURGH,

On the 29th of June, 1835.

By JOHN FLETCHER, M. D. F.R.C.S.E.

LECTURER ON PHYSIOLOGY, AND ON
MEDICAL JURISPRUDENCE.

MANY of our subscribers and friends have lately inquired of us the cause of the cessation of Dr. Fletcher's admirable lectures; but the following remarks afford a satisfactory answer. It will appear by the sequel, that our able and learned contemporary had most humanely acted as medical adviser to an unfortunate man, charged with the horrible crime of murder, was engaged for weeks past, and succeeded by real science in saving the life of a fellow creature. The remarks on the trial, which we now submit to our readers, are replete with the deepest interest, and will serve as a beacon to future medical jurists to avoid falling into error, by depending upon the assertions of those ignorant and illegal practitioners, who so often appear as witnesses in courts of justice. It is lamentable to reflect upon the fact, that human life may be sacrificed by the evidence of such men, which, strange to say, is still admissible in our law courts. The fault, however, lies with the legislature and our medical corporations. They allow any person who has the audacity and impudence to style himself physician, doctor, surgeon, or accoucheur, to appear as a witness to elucidate the most abstruse and difficult questions as to the cause of death. In other countries, for example, in France, Germany, Prussia, Italy, &c., no man is allowed to appear as a medical witness, unless distinguished for his knowledge and acquirements regarding the subject under investigation. And this is perfectly wise, when we consider that the

life of a fellow creature is to be preserved or destroyed by the result. We might cite many unfortunate cases which occurred in this country, in which life—we grieve to indite the fact—was sacrificed by the ignorance of medical witnesses, who assumed the titles of the profession, and also by the ignorance of judges and lawyers on medical questions*. We however refrain, but cannot help observing, that had the coroner or sheriff been a well educated and scientific medical practitioner, or had such an enlightened and learned individual as Dr. Fletcher been coroner or witness at the inquest hereafter mentioned, the unfortunate prisoner, whose name is recorded in the following remarks, would never have been put on trial for his life, or have had so miraculously escaped the gallows. The truth is, that coroners ought to be medical practitioners, or at least have a scientific medical adviser. If this were the custom—and we beseech our legislators to consider the subject duly—or if barristers were advised by such able men as Dr. Fletcher, when defending criminals, our firm conviction is, that a large proportion of the accused would be properly acquitted, and nine-tenths of the medical pretenders who figure as witness—and the majority of witnesses are of this class—would be exposed to the scorn of the public.

Nevertheless, we see such individuals as Mr. O'Connell and Mr. Warburton opposing the English Coroners' Bill, and causing its rejection in this session of parliament—the first on the grounds of the exorbitancy of a fee, of one or two pounds to a medical witness! on the score of jobbing; as if personal liberty, and finally human life, were to be put in jeopardy for such a paltry consideration. The latter opposed the bill on the grounds of the mode of election of the coroner. Entertaining, as we do, in general, the sincerest respect for the good intentions of both these legislators, we can-

* Mr. Amos, an English barrister of eminence, acknowledged this fact in his lectures at the London University, published in the Medical Gazette.

not help remarking that they have gained few laurels by their opposition to the bill in question; and we suspect rather strongly, that the future historian will record the obliquity of their mental vision on this occasion.

Thanks to Mr. Wakley, with whom we never agreed on many points of medical reform, for having clearly exposed the subject in its true light, and completely silenced Mr. O'Connell.

Mr. Wakley well observes, that the legislature was always ready to enact laws which allowed barristers to travel in coaches and four, and receive fees of five guineas a day; but when medical practitioners were concerned, though they had to examine putrid dead bodies, after the lapse of days, weeks, or years, which required six or eight hours' labour and rendered the operators liable to the danger of imbibing fatal disease, then a pound or two was considered an exorbitant remuneration!! Mr. W. also added, that in one case of an inquest at the London Hospital, an *attorney coroner*, at the head of the jury, found the supposed defunct *eating oysters*! Mr. O'Connell, with his usual forensic tact, replied, that this exceeded any thing which happened in his own country. Much to his credit, he gave no farther opposition to the Coroners' Bill, but Mr. Warburton, the friend of medical reform, gave it the *coup de grace*, or, to use a free translation, the death blow. Let both these legislators peruse the following pages—and we shall afford them the opportunity—and then reconcile to their philanthropy and independence, their hostility—we shall use no harsher term—to the English Coroners' Bill; though medical practitioners are allowed four and five guineas for attending inquests, and most properly so, in Ireland. Leaving these members of the Collective Wisdom to consider the foregoing and following facts, we turn with sincere pleasure to the beneficent exertions of our noble and disinterested profession, in which sordid gain has never had any influence. We place before them the brilliant example of Dr. Fletcher, in exculpation of an innocent plebeian, and saving his life. We well know that Mr. O'Connell has repeatedly given his valuable services, without any reward, save the pleasure of doing good to his unfortunate countrymen; but he must excuse us for speaking of him as the opponent to the introduction of Mr. Crisp's English Coroners' Bill.

We place his example before all classes of the public, legislative, judicial, and professional, with the hope that many will imitate it. If it needed support—and it does not—we should allude to the late Bristol case, in which conviction, after a lapse of fourteen months, followed the result of scientific medical evidence of an exhumed body, and without the slightest pecuniary remuneration there. We cannot but ob-

serve, without meaning disrespect, that neither clergymen, judges, lawyers, or senators, act *so disinterestedly*; and we offer this remark, as they are always ready to defend the preposterous custom of requiring the medical profession to give their services *gratuitously*.

In fine, the following remarks offer an excellent lesson to medical men, and prove how cautious they should be in receiving the testimony of every fool who calls himself physician or surgeon, and is admitted as such by the law, "which is the perfection of reason." Even our ablest physicians are misled by such witnesses. Thus, Professors Christison and Traill were duped by the evidence of an ignoramus named Williams, as appears by the following remarks. They should have known better. Under a false impression, their evidence went to hang an innocent man. When a prisoner is placed at the bar, and a verbose indictment read, three-fourths of which is either tautology or fudge, the judge, jury, lawyers, and medical witnesses, feel disposed, in most cases, to condemn the accused without a hearing. The clerk of the crown reads the indictment with solemn emphasis; he charges the accused, in many cases without reason, of having, "without the fear of God before his eyes, and instigated by the devil, riotously, illegally, and unlawfully inflicted divers and sundry wounds upon the deceased," though no wound was in reality inflicted; and "against the peace of our sovereign lord the king, caused the death of A. B." Judge, barristers, jury, auditors, and witnesses all look grave, and cock their sapient ears at the charge, though in truth the deceased died a natural death, and was subjected to no violence whatever. The trial proceeds, a pretender to a medical title swears, as clearly as that the moon is made of green cheese, that the accused is guilty of the death. Better informed medical witnesses are called; they base their evidence upon the swearing of a person who would not, or could not distinguish the liver from the heart: but credulity influences all concerned; they are disposed to consider the accused guilty, and they sometimes allow themselves to be stultified, and a fellow subject sacrificed.

Thus, it has been proved that arsenic blackens a knife, and on this evidence an innocent prisoner is executed. It has been sworn that an infant born at the age of six months is not viable, and a woman who commits infanticide is acquitted, though infants born at that period have arrived at maturity. It has also been sworn that a woman after delivery could not walk across the apartment in which she lay, and appear at a window, though we have known one travel forty miles in a coach, between the delivery of one infant and another. It has also been proved, that a woman at the age of sixty cannot be a mother, and im-

mense property passess from her son, though Haller and others record cases of women at the age of seventy who brought forth a child. We might multiply cases of this kind to infinity; there is not a day in which examples are not to be found in the newspaper reports; and all shew the necessity of appointing medical coroners, or medical advisers to coroners, barristers, or judges. This is the custom in France and other countries. The benefits accruing to the public would be, that the coroner's warrant would not improperly deprive an accused individual of his liberty, for an hour, week, or months; and secondly, that barristers, jurors, and judges would receive correct evidence, and decide accordingly. It is a monstrous error to admit uneducated medical practitioners as witnesses at either civil or criminal trials; none but legally qualified, and in large towns and cities none but the most learned, scientific, and experienced, ought to be admitted. If a law to this effect were enacted, a vast deal of injury would be saved to every class of society. It is to be hoped that the wisdom of the legislature will, ere long, lead to the accomplishment of this important and necessary improvement.

Were legislators to peruse Dr. Fletcher's remarks on the case we are about to submit to our readers, they could not fail to perceive the expediency and necessity of requiring the testimony of the most learned and experienced medical men in all judicial investigations, from the highest to the lowest.

We reprint Dr. Fletcher's Remarks on the Trial of Robert Reid, for the good of our profession and the public, and we feel convinced that they will do a vast deal of benefit to both.—Ed.

Having ascertained that a strong impression exists in the public mind that the acquittal of Robert Reid of the late charge of murder was undeserved, and being given to understand further, that certain points in the medical evidence in his favour may soon be made the subject of express animadversion, I think proper, having acted as medical adviser to his counsel, to state, in few words, my views of the general merits of the case, before the subject becomes confused, as it is probably destined to be, by the agitation of certain isolated and abstract points connected with it, and encumbered with the desultory *verbiage* almost inseparable from such discussions. As my name does not appear upon the face of the proceedings at his trial, I might very well have declined this task; but, engaged as I was in the business, I cannot help feeling desirous of removing the prejudice which I find so generally entertained against Reid; a prejudice founded, I am persuaded, upon the incompetency of the public in general—owing to the very meagre account of the exculpatory evidence contained in the daily papers—fully to appreciate some of the chief circumstances which

tell in his favour, while all are abundantly capable—from the comparatively full account given of the evidence on the other side—of estimating every point which has an opposite tendency. It is my intention then to present, in the following pages, a collective view of the general merits of the case in question, as they appear upon the face of the trial, leaving it with the reader afterwards to determine whether I had any grounds for interesting myself, as I did, in this man's behalf, or whether he should have been left, without a suggestion on his side, to that fate which otherwise might have awaited him. I need hardly say that I am not responsible for any part of the medical evidence given either against Reid or in his favour; but I will not shrink from my share of any imputation which may be cast upon the latter, where I feel satisfied that it was well founded. I have no hesitation in declaring thus *in limine* that, while I regard the medical evidence for the crown, in this case, as in most points exceptionable, and in many disgraceful in the extreme, I look upon that for the accused as in general highly satisfactory; and, without taking upon myself to father to the letter every statement made by the medical witnesses on the side of mercy, I entirely coincide in the general bearings of these statements, and in the conclusions to which they tend*.

* On some occasions, when the medical opinions given in a case of this description have been more or less contradictory, it has been objected afterwards by the one party that the conduct of the other was un courteous and uncandid, in their not having previously communicated with their professional brethren, and stated to them the grounds on which they intended to oppose them; but I beg to observe that no reproach of this kind can attach to me in this instance. On the very first day of my engaging in this affair, I waited personally on the Professor of Surgery in the University, the colleague of two of the principal witnesses for the crown, stating my doubts, and requesting his opinion on some of the chief points of the case; and it was by his friendly advice that I acted as medical counsel in this business, instead of allowing myself to be cited as a witness. I afterwards prepared a long list of questions, calculated to elicit the chief facts which I was desirous of making out at the trial; and I have reason to believe that these gentlemen were fully precognosed, long before the trial took place, on the substance of these questions, by the counsel for the prisoner. In a personal interview also with Dr. Forbes, another of the medical witnesses for the crown, the day before that on which the trial was first expected to come on (Monday, 16th March), I conversed with him freely on the various points of medical evidence afterwards brought out at the trial, and gave him a card of introduction to an accomplished anat-

As the following remarks are intended for the non-medical, as well as the medical public, I shall make them as simple and as concise as possible, avoiding, as far as I can, all technicalities and all abstruse medical discussions, and confining myself strictly to the naked case before us, any allusions to other analogous cases—which might very easily have been made—being calculated, with people in general, rather to obscure than to illustrate the subject immediately in hand.

It would have been certainly a great advantage had an authenticated account of the trial preceded the comments which I am about to make. Such an account will in all probability soon appear: but in the meantime, I do not despair of being able to make the following analysis of the evidence perfectly intelligible to those who have seen the accounts of the trial contained in the public papers; while, for the sake of those who have not, I have thought it expedient to subjoin an extract from the indictment, as given by these papers, and a list of those witnesses to whose statements I shall have occasion to refer, both for the crown and for the prisoner, in the order in which they severally gave their evidence*. With re-

gist in this city, who was so obliging as to accompany him on the Sunday—as the time was pressing—to his museum, and to point out to him, on wet preparations, the anatomy of the parts on which he was to give evidence. Had the trial taken place at this time, no medical witnesses whatever for the prisoner would have appeared, his counsel being prepared to rely for the defence entirely on the cross-examination of the crown witnesses: but, in the long interval which elapsed before the actual coming on of the trial, it was considered expedient by the counsel and agent for the prisoner to have, if possible, some positive medical evidence in exculpation; and it was in consequence of the answers which they received to the identical series of questions the substance of which was discussed with the crown witnesses from the medical gentlemen who appeared on the opposite side, that the latter were cited. Nobody therefore can complain of having been taken by surprise in this business. All must have been aware from the first, not only of my being engaged, but also of the precise line of defence which was to be set up; and if any further communication were desirable between the parties, it was surely as much the business of the crown witnesses as that of those who entertained a different opinion, to seek such communication, which certainly would not have been refused.

* “On Monday (29th June, 1835) the continued diet was called against Robert Reid, tailor at Pathhead, accused of the murder of Elizabeth Arnot or Reid, his wife. The indictment set forth that he ‘did, on the 19th or 20th of September, 1834, wickedly

spect to the *ipsissima verba* of the witnesses to which I refer, they are copied from verbatim notes of the proceedings taken during the trial, and strictly corresponding, in all important points, with my own remembrance of the evidence given.

The presumption of the guilt of the prisoner in this case appears to have rested principally upon the following circumstances, medical and moral, from the former of which the crime, and from the latter the criminal, were inferred. To the *medical circumstances* belong, 1. The posture in which the corpse of the reputedly murdered woman was found. 2. The discoloration of the back of the neck and spine. 3. The alleged presence of coagulated blood in the discoloured parts. 4. The reputed rupture of one of the external jugular veins. 5.

and feloniously attack and assault the said Elizabeth Arnot or Reid, and did, with an axe, or with some other instrument to the prosecutor unknown, strike her one or more severe blows upon or near to her neck, and did thereby, or by some other violent means to the prosecutor unknown, fracture and dislocate one or more of the vertebræ in or near the neck; in consequence of all which, or part thereof, she immediately or soon thereafter died; or did, by strangling or suffocating her in some manner to the prosecutor unknown, or by some other means to the prosecutor unknown, then and there wickedly and feloniously put her to death; and the said Elizabeth Arnot or Reid was thus murdered.’ To all of which the prisoner pleaded not guilty.”

Witnesses for the Crown referred to in these remarks.—Isobel Young, of Pathhead; Mrs. Tod, ditto; Mrs. Chisholm, ditto; Cherry Manners, ditto; Mrs. Ness, ditto; John Arnot, ditto; Mrs. Fife (wife of John Fife), ditto; John Piggot, ditto; Thomas Grieve, of St. Clairtown; Charles Walker, Baron Bailie of Pathhead; C. C. Williams, surgeon, of Dysart; Dr. Forbes, of Dysart; Professor Christison, of Edinburgh; Professor Traill, of Edinburgh.

COUNSEL.—The Solicitor-General (Cunninghame), John Shaw Stewart, and George Napier, Esquires, Advocates-Depute.

AGENT.—David Cleghorn, Esq. W. S.

Witnesses for the Prisoner.—* John Fife, of Pathhead; * Mrs. Thomson, ditto; * Mrs. Crichton, ditto; * Mrs. Lenny, ditto; * William Duncan, ditto; Mrs. Finlay or Smith, of Kirkaldy; Henry Russel, of Pathhead; Mrs. Gray or Smith, Jailor of Kirkaldy; Mrs. Wilson, of Pathhead; Michael Slater, sheriff-officer of Kirkaldy; James Fife, of Pathhead; Dr. J. R. Robertson, of Edinburgh; Professor Lizars, ditto; Dr. Mackintosh, ditto.

(Those marked * were in the list of Witnesses for the Crown.)

COUNSEL.—James Anderson, and G. H. Pattison, Esquires, Advocates.

AGENT.—William Duncan, Esq. W. S.

The fracture and luxation of one of the vertebrae of the neck; and, 6. The discovery in the apartment of an instrument competent to inflict these supposed injuries. To the *moral circumstances* belong, 7. The alleged bad terms on which the prisoner lived with his wife, and his occasional threats of doing her some injury. 8. Her frequent complaints of his bad usage of her in general, and in particular her exclamation in the middle of the night preceding the day of the supposed murder. 9. The alleged agitation of the prisoner when taxed with the murder, his ambiguous expressions when asked of what complaint his wife had died, and his subsequent declaration of satisfaction at being released from her. 10. His denial of having been at home at two o'clock on the day of the supposed murder. 11. His haste to procure a coffin for the corpse; and, 12. His alleged confession of the murder.

Never was there a case on which, to all appearance, a stronger, a more consistent or a more unbroken chain of circumstances, calculated to produce in every mind a conviction of guilt, was brought to bear upon an unfortunate individual; and so impossible did it in fact appear to me, at the first view of the case, as presented to me by the indefatigable agent for the prisoner, Mr. Duncan, to find a loop to hang a doubt on, that I was tempted to decline engaging in it at all. A closer inspection of the matter however tended materially to alter my opinion; and let the reader only suspend his judgment of the whole of this chain till each of the links has been examined, and he will probably find, as I did, that there never was a case in which an apparently strong, consistent and continuous series of circumstantial evidence of guilt was in fact more feeble, more incongruous, or more interrupted. On the other hand, in going attentively through the evidence purporting to substantiate the presumption of guilt—to say nothing of that the declared object of which was to lead to a different conclusion—so many considerations at every step present themselves, adapted, not only to stagger our confidence in our first impression, but to suggest and inculcate an opposite belief, that we find ourselves gradually becoming converts to the latter; and if we do not at last confidently say that the woman died a natural death, we are at least disposed to express great doubts that she was murdered. I shall in the first place speak of the several circumstances above enumerated as favouring the presumption of the guilt of the prisoner, and of the objections to which each is amenable, as either not established as a fact, or not warranting this inference; and afterwards state, in a summary manner, a few of the principal circumstances from which an opposite conclusion may be deduced.

And first, of those circumstances of the case which involve principally *medical facts*

and opinions, and which were presumed to substantiate the *corpus delicti*, or perpetration of the crime.

1st. The posture in which the corpse of Mrs. Reid was found at half past two o'clock, on Saturday, the 20th of September, 1834, the day of the supposed murder, was described by the witnesses Isobel Young, Mrs. Chisholm, Cherry Manners, and Mrs. Ness, to have been that of sitting on the floor by the side of the bed, with a portion of the bed-clothes round the lower part of the body, the face turned towards the bed, the head either inclined a little backwards (Chisholm), or backwards and to one side (Manners), or held erect (Ness), the left arm either resting on a chair (Young), or hanging down by her side, with the back of the hand on the ground (Chisholm), the right resting with the elbow on the bed, and maintained in the upright position without any further support, "as if she had been going to put it to her face," (Manners), and the legs crossed under the trunk, the left being less protruded than the right. This posture was presumed to be such as she could not of herself have assumed; and we find accordingly that it was the impression of Mrs. Chisholm and Cherry Manners that she had been placed in this posture by another person. But conceding that "the only way in which this posture can be accounted for," as stated by Professor Christison, "is the presumption that it had been changed," what, it may be asked, could be more natural than for Reid, on returning to his home, as he did at two o'clock, and finding his wife stretched perhaps upon the floor, to place her as erect as he could, and to wrap a portion of the bed-clothes around the lower parts of her naked body, before he went to seek assistance? Is it not what almost any man, in the same circumstances, would have instinctively done, and would his having done so afford any reason for believing that he had murdered the woman? On the contrary, would it not rather lead to an opposite belief, since, of all the postures he could possibly have selected, had he been a murderer, to make it appear that her death had been natural, the one above described was the least adapted for the purpose? We may concede then with perfect safety, if not with advantage, that the posture in which the corpse was found was that in which it had been placed by Reid. But it still remains a question whether this attitude were retained, as was supposed, by the rigidity of death; the occurrence of which would have warranted the presumption of Professor Christison that she had been dead some time, and perhaps therefore had been killed by Reid at his preceding visit to his house, which had taken place at nine o'clock, he having been absent from home from half-past nine o'clock till two. It is hardly necessary to say that the supervention of such rigidity by this time would have proved no-

thing prejudicial to the prisoner, since Mrs. Reid might have died from natural causes at any time during this interval: but the presumption is that no such rigidity had at this time taken place. At the time of Reid's changing the posture of the body, it had either already acquired this rigidity, or it had not. If it had, provided the woman had died in any other posture—and that she became rigid, as supposed by Professor Christison, with her limbs in this relative position while stretched on the bed or on the floor, is inconsistent, as remarked by Dr. Mackintosh, with the direction of the legs—he could not in all probability have made the body *assume* the attitude which it presented; if it had not, he could not, unless some other cause had been in operation, have made it *retain* that attitude. It may be said indeed that the upper parts of the body might have been already rigid while the lower were still flexible, and there can be no doubt that this is perfectly possible: but what right have those who take an unfavourable view of the question to assume, among so many other things, that such was the case, while they deny, as they do, to those who adopt the opposite opinion, the privilege of assuming any thing? Supposing however that Reid had either succeeded in bending the body, already stiff, into the attitude required, or, having placed it in this attitude while flexible, had held it stationary till it became rigid, how is this presumed rigidity compatible with the fact that, *at the time of finding the corpse it was perfectly supple*—so much so, that Mrs. Thomson thought that the woman had just died? The neck, we find, was so flexible as to allow of the head being immediately placed on a chair, as it was by Cherry Manners; the arms and legs were perfectly pliant, and “easily stretched down,” as they are described to have been by Mrs. Ness; and the whole body was so yielding as to admit of being directly laid out upon the floor, as is stated by Isobel Young, Mrs. Thomson, and other witnesses. It is true the rigidity of death ceases after some time, and, as observed by Professor Traill, may be diminished by much handling; but it never goes off so suddenly and so entirely, as to admit of a posture like the one described being thus abruptly changed. Further, the presumption that the retention of this posture was owing to rigidity is opposed to the fact that there was at this time no appearance of that discoloration which afterwards showed itself, and which, whether it depended on *ecchymosis*—in other words, the active deposition of blood by the blood-vessels while still possessed of vitality—or on *livor*—that is to say the passive deposition of blood by these vessels after the cessation of the circulation, but before the blood has become coagulated—would in all probability have manifested itself before such rigidity. It appears indeed in the highest degree inconsistent, as

observed by Dr. Mackintosh, to represent a dead process, like that of the supervention of rigidity, as preceding a living process, like that of the occurrence of *ecchymosis*; and if the rigidity of the muscles after death depend, as is probably the case, upon the same cause as the coagulation of the blood—namely the inspissation of the chemical principle called fibrin—it is reasonable to suppose that this rigidity would not have preceded *livor*, since the process by which the latter is effected implies that the blood is still in a liquid state: but to this subject I shall recur in future. I have said nothing of the partial warmth of the body when first found, since this is quite compatible with the occurrence of rigidity; but such is hardly the case with the want of the marks just alluded to. The fact appears to be, that while the erect posture of the trunk was the effect of the man's attempts to raise the corpse, the perpendicular direction of the right arm was the result, not of the ordinary *post mortem* rigidity, but of a spasmodic contraction of the muscles from a fit, in which the woman had died, not from two to eighteen hours, as supposed by Professor Christison, but probably only a few minutes before she was found; an accident to which—as will be shown in the sequel—she was obviously predisposed, to the exciting causes of which she had been recently exposed, and the supervention of which about this time might, from the immediately preceding symptoms, have been anticipated. The probability is, that on getting out of bed—and she seldom rose, as we learn from Isobel Young, till past mid-day, she had fallen on the floor in a convulsion fit, and that the effects of this, after death, were more perceptible on the right arm than on the left, because the right side of the body was comparatively healthy, and therefore more susceptible of spasmodic action, while the left was palsied. Of this palsy and its effects I shall have to speak elsewhere, but in the meantime I may remark that it was the right side of the head principally, according to Cherry Manners, of which Mrs. Reid was accustomed to complain, as is frequently the case in palsy of the left side of the body; and towards the right side, according to Mrs. Fife, that she inclined during walking*, as would probably be the case from the greater action of the muscles of the spine on this side than on the other having produced a curvature of the spine in that direction. And these facts, while they favour the presumption that the peculiar

* Mrs. Gray or Smith of Kirkaldy says, that it was towards the *left* side that Mrs. Reid inclined; but it is fair to believe that Mrs. Fife, her immediate neighbour, was less likely to be mistaken in this particular than Mrs. Smith, who lived at a distance, saw her but seldom, and was not acquainted with her.

posture in which the limbs were found depended upon a spasmodic contraction of the muscles, are further hostile to the notion that it was maintained by the rigidity of death; such rigidity occurring not less remarkably—perhaps even more remarkably—in palsied limbs than in those which are healthy. The former presumption likewise is quite reconcileable, while the latter is not, with the sudden and perfect return of flexibility. Again, Mrs. Reid had suffered, only a short time before, an attack of apparently precisely the same kind, in which, as appears from the evidence of Young, Thomson and others, she became speechless and seemed to be dead; the body was cold, and the “*arms so stiff*,” that Mrs. Thomson had “*great difficulty in getting on her shift*.” Was this the stiffness of ordinary *post mortem* rigidity, or that of spasmodic contraction? How long the stiffness from the latter cause may continue after apparent death I shall not here stop to inquire. We know that the features of the face often retain, till putrefaction supervenes, the expression of the last mental emotion; that in cases of death from cholera the contractions of the extremities are often equally permanent; and that after death from tetanus, particularly as induced by certain poisons, the permanence of such contractions is still more remarkable: but upon this subject I have no intention of dilating. It is sufficient for my immediate purpose if it be conceded that they may continue for only a few minutes, so as to obviate for this period the natural tendency of gravity; for that the woman had not been dead any great length of time is presumable, among many other things, from the non-appearance at the time the corpse was found, or *for a long time afterwards*, of the least degree of *livor*, a fact which Professor Christison himself admits is irreconcilable with the opinion that she had been killed at nine o'clock. If this be true she must have died at some time between half past nine o'clock in the morning, and two in the afternoon, during the whole of which time Reid was out of the house, and therefore could not have killed her. For the presumption, supported by Dr. Forbes, that the fatal blow might have been inflicted at nine o'clock in the morning, or even at twelve o'clock the preceding night—when the exclamation already alluded to was heard—and not produce its effect till some hours afterwards, when, upon the woman's attempting to raise her head, the supposed injury of the spine was made to bear upon the spinal cord, is obviously untenable; since a blow of sufficient violence to produce this injury of the spine must, as admitted by Professor Christison, have at once proved fatal, if not by the direct physical compression of the spinal cord, at any rate by the intensity of the concussion to which it must have been subjected. It would have settled the question respecting

the presumed change of posture after death had the natural *livor* displayed itself by the time the body was found; since it would of course have been seen principally, not in those parts which were undermost at this time, but in those which had been undermost while this process was going on: but this criterion was of course unavailable in the present instance. Whether the posture were changed or not however, the circumstance furnishes, as I before observed, not a tittle of evidence in favour of the presumption of murder, except as taken in conjunction with Reid's denial, at one time, of having been at home at two o'clock, of which I still have occasion to speak under the head of the moral circumstances of the case.

To be continued.)

—o—

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS, FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster Dispensary, Gerrard Street, Soho;
Session 1834-35.*

LECTURE XLVII.

Lientery—Watery Diarrhoea—Watery Gripes—Prolapsus Recti—Cholera Infantum—Inversion—Natural History of Intestinal Worms—Are Worms generated within or without the Animal Body?

GENTLEMEN—We have now to consider the remainder of the diseases of the intestinal canal, so as to complete the pathology of this part of the human body. The subjects which claim attention during this lecture are that form of diarrhoea termed *lientery*, *prolapsus recti*, *cholera of infants*, and the *natural history of intestinal worms*.

The last kind of diarrhoea which demands notice is that termed diarrhoea *lienteria*, in which the food passes through the bowels slightly digested or nearly unchanged.

Lienteria—Watery Diarrhoea—Watery Gripes—The motions in this disease are thin, watery, and copious, often astonishingly abundant; they are white and mixed with half-digested food, which is passed before the chyle is absorbed; and every thing the infant takes “*runs almost immediately through it*.” In a few hours it is often reduced to the lowest condition, and frequently dies within twenty-four or forty-eight hours, unless proper means are employed for its relief. The stools may or may not be tinged with bile.

The proximate cause of the disease is subacute inflammation of the intestinal mucous membrane. There are no colics or severe gripings unless the mucous membrane of the intestine is congested, inflamed, or ulcerated.

It was formerly supposed that lientery was caused by atony or want of tone in the stomach; but dissection has disproved that pathology. Indeed, it would be difficult for a modern pathologist to understand how several motions, for example, twenty or thirty, could be suddenly expelled from the intestinal canal in a state of atony, though such rapid expulsion would be better explained by referring it to inordinate peristaltic action, excited by irritation or inflammation.

M. Capuron states that the uniform white colour of the dejections distinguishes them from mucous and serous evacuations; and Dr. Good asserts that the secretion of bile is arrested in this disease, or very rarely appears. Dr. Dewees, on the contrary, informs us that this is not the case, and that the motions are often mixed with bile. The diagnosis between this disease and severe purging, described by Dr. Underwood, is so very confused, that I do not pretend to understand it.

As the aliments remain but a short time in the stomach and bowels, and are not digested or converted into chyle, and as there is not nutrition or new material for blood added to the circulation of the vital fluid, emaciation, marasmus, and hectic fever, speedily appear.

If the disease do not depend on inflammation, but on atony, it may be cured.

The *treatment* already recommended for diarrhœa should be rapidly employed, and if there be great exhaustion, aromatic spirit of ammonia, or the succinated spirit in syrup, arrow-root, or some beef tea, chicken broth, or animal or vegetable jelly, will be of essential service in rousing the vital power. A mild nourishing diet, such as already advised in diarrhœa, with tonics, chalybeates, &c., will be necessary after the lientery is checked, to improve the appetite and general health.

Dr. Underwood strongly recommended emetics of antimonial or ipecacuanha wine; but these are now seldom employed. I have stated the objections to these medicines in a former lecture, when describing erythematic and follicular enteritis.

Every one of the forms of diarrhœa now described may become chronic, and continue for weeks or even months, more especially at the period of ablatation or weaning, on account of the improper diet usually, indeed generally exhibited at this time. Diarrhœa is also obstinate and chronic at the periods of teething and weaning. Dr. Cheyne has written an essay on the atrophica ablatatorum, or "weaning brash," or diarrhœa at this period, in which he concludes that the disease is caused by acrid bile, or rather the morbid state of the liver, that occasions it. According to my experience and observation, the diarrhœa caused by weaning differs in no respect from the forms I have already described, and which may occur at any period of infancy; and the same treatment, with certain modifications, may be used in all the forms of this disease.

When diarrhœa is severe or chronic, it may

be followed by protrusion or displacement of the rectum—a disease whose pathology I described under the head of displacement of organs. I shall now content myself with recapitulating its more prominent characters and treatment.

Prolapsus Ani—Prolapsus Recti—Procidencia Ani—Descent or falling of the Lower Bowel.—Descent or falling of the lower bowel is often caused by diarrhœa, more especially if accompanied by much tenesmus, or of frequent forcing attempts to go to stool, as under such circumstances the bowel is relaxed, and disposed to protrude. It should be recollected that the internal or mucous coat of the lower bowel possesses numerous folds, and it is this that is most commonly protruded. When its surface is irritated by worms, or when a costive infant makes repeated efforts to evacuate its bowels, or when drastic purgatives are given, or when there is diarrhœa, constipation, or stone in the bladder, any one of these diseases may cause tenesmus and descent of the inner coat of the bowel. This forms a red, soft tumour, which is not painful at first, but will speedily beset, if pressed on or strangulated by the sphincter, or the circular muscle, whose use is to close the extremity of the bowel. In this last case the protruded part may readily inflame or mortify.

It is therefore necessary to ascertain the cause of the protrusion, to remove it speedily, so as to prevent danger. As soon as the cause is removed, the disease is rapidly cured.

Treatment.—In cases of simple relaxation there is little or no difficulty in returning the mucous lining of the bowel, or the bowel itself. The protruded part should be fomented with warm water, or a decoction of chamomile or poppyheads, and great care must be taken not to apply the fomentation, or as some term it the stupe, too hot, lest it inflame the bowel. I have known an instance in which inflammation was excited by making a child sit on a warm brick rolled in flannel—a popular and sometimes a piece of medical practice. Some practitioners advise, to place the patient, whether an infant or adult, sitting over a vessel containing warm water, before any attempt is made to return the protruded part. Others recommend the use of warm astringent fomentations, such as decoction of oak bark, simple infusion of roses, without sulphuric acid, or the application of warm port wine, and the vapour of turpentine arising from throwing this medicine on a red iron.

It appears to me that the application of astringents, while the bowel or its membrane is protruded, is sometimes useless. The application of cold or vegeto water, with a few drops of laudanum, will sufficiently contract the part, and facilitate its return. Warm fomentations will relieve irritation and pain, and tend to produce the same effect. When these remedies are employed, we should next compress the tumour between the finger and

thumb, and, with the forefinger smeared with lard, olive oil, pomatum, or spermaceti ointment, push the part into its usual situation. It would be then advisable to use a starch and opiate clyster, a decoction of oak bark, or infusion of roses with opium, or to apply cold to the anus for a few minutes, then a compress secured by a roller or bandage passed between the thighs, and also round the abdomen. The exhibition of a proper dose of opium or other sedative by the mouth is also advisable, as the action of this on the stomach will be conveyed sympathetically to the affected portion of the digestive canal, and abate any degree of pain or irritation in that part. It is scarcely necessary to observe to the regularly educated medical practitioner, that the whole tube from the mouth to the anus is continuous, and forms the digestive, alimentary, or intestinal canal, and that irritation in any part of it may affect the whole, and that a sedative applied to any part of it, will relieve irritation in any portion of it, however distant. Many proofs of the correctness of this statement might be adduced, but one or two shall suffice. Who does not know that teething will cause bowel complaint; that worms in the lower bowel will irritate the mouth and nostrils; or that irritation, inflammation, ulceration, worms, or undigested food in any part of the tube, from the stomach to the anus, will not only derange the whole or any part of the alimentary canal, but cause convulsions, by irritating the brain as well as all parts of the body? On the same principle, a sedative taken into the stomach or rectum will relieve any one or the whole of the derangements mentioned. The greatest care, however, is necessary in regulating the dose of this valuable remedy, when it is given by the mouth and rectum, as an overdose may cause fatal effects. The quantities already mentioned in these lectures may be prescribed to act on the stomach or rectum, but non-professional persons should not venture on the use of sedatives or soothing medicines in both ways. If they do, they will, in a preponderating majority of cases, poison the patient. It sometimes happens that the protruded part, both in infants and grown persons, becomes intensely red, black, and painful, and cannot be reduced or returned. This state is caused by the pressure of the sphincter ani, and requires the free application of the cold lotion already advised, which according to Underwood is generally effectual, though according to his commentator, Dr. Merriman, leeches are sometimes necessary. My own experience accords with that of the latter writer: suppositories, tampons, or plugs, wetted with the astringent decoctions already enumerated, have also been advised, and these are decidedly useful in obstinate cases. Astringent clysters with or without opium are also highly beneficial to prevent the redescend of the bowel.

In fine, descent of the lower bowel, or of its lining membrane, is scarcely ever fatal to infants or grown persons. The remedies proposed will generally remove and prevent it. The internal and local use of sedatives is also highly beneficial. All irritation in the alimentary canal or contiguous organs should be removed, and the general health restored by tonics, mercurials, proper diet, &c. The daily application of cold water, or other cold lotions to the anus, is also a valuable preventive. The use of the bidet, or the injection of cold water into the bowel, once or twice a day, is highly beneficial to grown persons, who are liable to this, or indeed any other diseases of the rectum.

Cholera Infantum—Cholera of Infants.—This is a rare disease in children under five years of age in this country, though common in the United States of America. We sometimes observe children affected with vomiting and purging of bilious matter, but most commonly there is more or less fæces in the motions. It was very remarkable, that malignant or blue cholera scarcely ever affected infants at the breast of a mother dying of the disease, or very young children. The indications of *treatment* are to correct the acrid state of the bile or other matters, by copious tepid diluents, barley water, beef or chicken tea, and to allay the irritation in the stomach and intestines, by opiates and astringents, as the mixtures mentioned for the treatment of vomiting, acidity in the stomach, and diarrhoea. Opium may be given by the mouth, in clysters, or applied externally by friction on the abdomen. The saline draught with opium, given in the act of effervescence, is also useful to allay the vomiting.

The tone of the stomach and bowels should afterwards be improved by tonics and alterative doses of mercury; such is the plan of treating simple cholera in children as well as adults. The simple cholera of this country was in general rarely fatal until the appearance of the malignant disease in 1832, but since that period we observe cases that destroy life in fourteen or sixteen hours.

Invermination—Worms—Natural History of Worms—Are they formed within or without the Animal Body?—It is a singular fact that we have not in our language a good account of the natural history of intestinal worms, nor even in all that has been written by helminthologists. I shall therefore attempt an outline of such in the following remarks. Naturalists and physiologists have never agreed on the origin of worms in the human body. Hippocrates, Galen, and the ancients, attributed these troublesome inhabitants of the digestive and other organs, to a putrefaction of the humours. Selle, Grimaud, Muller, and many others, concluded that they were formed by a vital principle in the intestinal mucosity. Others supposed them to be spontaneously generated; and some considered that

pre-existent germs were developed, as Rhæder, Wagler, Swammerdam, Valisnieri, Reaumur, &c.

A question then arises, do the germs enter with the food or drink, or with the air, into the lungs, or are they transmitted by fathers and mothers at the time of generation, as maintained by Andry, Leclerc, Bloch, &c.?

It would occupy too much time to enter fully on the consideration of the origin of worms at present, but I shall notice the leading arguments on the subject: I agree with Van Swieten in thinking, that it is sufficient for a medical practitioner to recognize the symptoms and remove their cause. Worms have been found in different parts of the body unconnected with the digestive canal. Duverney describes the case of a child five years of age, who complained of acute pain at the root of the nose; it suffered from slow fever for three months, when it expired in severe convulsions. On opening the head, a lumbricus about five inches in length was found in the longitudinal sinus, which remained alive from six o'clock in the morning to three in the afternoon. Baglivi relates another singular case: the patient was a man aged forty years, who suffered from violent pains in the stomach, day and night; he complained every quarter of an hour of slight transient convulsions, his countenance was pale, his strength depressed, and after having suffered severe agony for eight days, he enjoyed a calm for two hours. At the expiration of this time he was seized with violent pains in the stomach and chest, which were speedily followed by death. Before the sufferer died, he complained of a sensation as if his heart and stomach were gnawed by dogs. On opening the body, there was found in the pericardium a blackish worm, alive and vigorous, covered with hairs, about the breadth of the hand and four fingers. The heart was of a livid colour. Again, worms have been found in the eye, in the antrum, in the ear, in the chest, lungs, liver, blood, &c. &c. No one, however, as yet, has given a satisfactory, or even a plausible explanation of these astonishing phenomena. Worms have also been found in the bowels of the fœtus in the womb, and hydatids have been discovered in every organ and tissue in the body. It is also to be remembered that every species of animals has its particular worms—birds, fishes, quadrupeds, and man. Shall we conclude then with Swammerdam, that the generation of worms in the bodies of animated beings, is a mystery which reason cannot penetrate?

Worms are observed in the different parts connected with the outlets of the body; they have not only been discovered in every portion of the digestive tube, the small and large intestines, the stomach, œsophagus, mouth, nostrils, eyes, ear, urethra, and vagina, but also in the substance of solid parts, and even in the blood and other fluids.

It is also a singular fact that there are different species of worms in different organs. This is constantly observed in the different portions of the intestinal tube, and occasionally in other parts of the body. Proofs of this statement will fully appear by the sequel.

Besides intestinal worms, there are others that infest the skin, as the *acarus scabiei*, *œstrus*, *filaria*, or *dracunculus* and *gordius*. We shall, however, confine ourselves to the description of the intestinal worms.

Vermes Entozoa—Entozoa—Vermes Intestini—Helmenthi—Helmenthia Alci—Helmenthia Podicis—Intestinal Worms.—These, according to Cuvier, form the medium between the class of worms and that of zoophytes. They do not appear to possess cartilages or blood-vessels, and some seem to have muscles, generative organs, and a nervous system composed of ganglions, while others are devoid of it. They are found not only in all the cavities, but in the tissue of organs. Various naturalists, among whom were Cuvier, Bloch, Brera, Bresmer, Laennec, and others, have endeavoured to class them, some according to their shape, others according to their anatomical characters.

The chief entozoa that infest the human body are, the *filaria medinensis*, *trichocephalus dispar*, *oxyuris vermicularis*, *ascaris lumbricoides*, *strongylus gigas*, *distoma hepaticum*, *bothriocephalus latus*, and *tœnia solium*, all which have vision. The commonest of these are the oxyures vermiculares, ascariides, lumbricoides, and tœnia.

The organization of worms varies from the lowest degree, in which we can scarcely discover any trace, as in the tape worm, which appears at first as a cellulo-gelatinous mass, until we arrive at a higher state of organization, in which we find muscles, organs, sexual apparatuses, and according to some helminthologists, a tolerably perfect nervous system.

Much discrepancy of opinion exists as to the origin of human intestinal and other worms. Some contend that they are generated within the body, others that they are conveyed into the body in the food or drink, or air during respiration.

It is urged on the one side, that the more common species, as the tape, round, and thread worms, have never been found living external to the body; and Bresmer urges, that if they were conveyed from without, we ought to find them more abundant in the earth, water, &c.; but the contrary is the fact.

Linnaeus stated that he had observed the tape and thread worms in a marsh in Lapland; but Muller has since proved that the worms he described are never found in animals. There are, however, abundant facts to prove that the ova of insects are taken into the system; a few of which I shall mention, and refer you to Good's Study of Medicine for numerous others.

Invermiration—Worms or Larvæ of Insects inhabiting the Human Stomach or Intestines.—Physiologists have at different times referred nearly all human diseases to vermination as their origin. Thus, Linnæus maintained that dysentery is the effect of a peculiar larva or grub belonging to the acarus or tick genus, which he has called *A. dysentericæ*. Kircher has ascribed the plague to another kind of animalcule; Langius, the measles; various authors, the itch; Sigler, petechiæ, Lusitanus and Poncillus, the small-pox; De Sault, hydrophobia; Hauptman, syphilis; Martin and Udman, pupils of Linnæus, elephantiasis; Nyander, another pupil, most, if not all contagious diseases; some said this was the cause of piles, of the black spots on the forehead, called acne; and others, the toothach. We also observe the extensive use made of the *tænia hydatidis*, which is said to be the parent of every limpid cyst, of tubercles in the lungs, of cancer; and even the most enlightened physiologist supposed man himself in every instance is the progeny of the same kind of maggot, and that this might be seen by any one who took the pains to look for it, vivaciously frolicking in the vast ocean of a drop of male semen. Such is the glorious uncertainty of medicine. We have at length approached to more correctness in our observations, and are more sceptical in our conclusions. It has been long known that incipient putrefaction, or a quiescence and exposure of animal fluids to warm atmosphere, will load them with animalcules; and these are maintained by some of our profession to be the result of equivocal generation. The most opposite and varied form of animal will be produced; and if equivocal generation were the cause, then man and all animals ought to be produced in the same manner. Aristotle was right after all, when he said, "*ex nihilo nihil fit*"—these productions are not generated from nothing. Natural history and genuine science afford a solution of this fallacious and generally received opinion. The atmosphere is swarmed with myriads of invisible ovula, and which are deposited in putrefying fluids which give out heat, and thus form a proper nidus for their evolution. These insect eggs in the air, elude our senses, and yet their existence must be obvious to any one who will condescend to observe what is termed, in vernacular language, a blight upon plants and gardens. Thus, a hop ground will be destroyed in twelve hours after a honey dew, by the *aphis humuli* or hop green-louse. This dew or mist is loaded with the eggs of the animal, and it stimulates the hop leaves to secrete a saccharine and viscid juice, which destroys the young shoots by exhaustion, forms a favourable resort for the insect, and a cherishing nidus of little dots, which are eggs. These are hatched in forty-eight hours, and are succeeded by hosts of other eggs of the same

kind, and these breed viviparously in both ways. Now it is probable, indeed certain that there are myriads of myriads of ova of various sorts in the atmosphere, which are deposited in situations favourable for their evolution. Even distilled water is not freed from them; and this is admitted by many naturalists, who placed the fluid in a marble basin, and found its surface in a short time loaded with various species of confervas, while the interior was peopled with microscopic animalcules. Again, damp cellars are covered with various funguses, and the driest brick walls are often lined, and their tops covered with lichens and mosses.

It is said that animalcules were found in abscesses; but admitting this for the sake of argument, and there is no respectable authority for the narration, their respective ova were taken in with the food or air, and separated as soon as they acquired a proper nursery or nidus. Several species of these animalcular eggs are often hatched in other substances than animals. Rolander saw the dysenteric worm of Linnæus in a water vessel made of juniper wood, and maintained it was from drinking the water that he was attacked with it. Dr. Barry of Cork describes a family all of whom were attacked with the same kind of worm, and one of them observed it in the bottom of a well from which they had water. (Trans. Dub. Coll. Phys. v. 2). Lister saw the *ascaris vermicularis*, the common mawworm, infesting the surface of a well; Linnæus the *tænia solium* or tapeworm in a muddy spring, and Palmærus has proved that the fluke or *fasciola hepatica*, which infests the liver of sheep, exists in marshes and stagnant waters. One of the most extraordinary cases of this kind on record, occurred in Cork in 1822—which I shall read for you hereafter—in which beetles or clocks were found alive in the living stomach. Any one acquainted with natural history, is aware how the same species assumes so different an appearance in different stages of its existence. For example, the caterpillar and the gaudy butterfly, the caterpillar and winged moth; the tadpole with gills and fish tail, without legs, becoming the legged frog without gills or tail. I might multiply examples, and introduce this fact, as it bears strongly on the danger of insects in the human intestines. We are however unacquainted with the history of thousands of thousands of these ova; nor perhaps could we know the whole history of *ascarides*, *lumbrici*, or *tænia*; and hence we may not know them out of the body, even though we should meet with them under some form or other. As animalcules are parasitic to plants, so are plants to animals. Thus, we know that in one night the sheets of patients with gangrenous limbs, when the discharge has soaked, will be covered with funguses; in fact there is no vegetable that is not infested by the parasitic plunderers, nor no animal,

from the highest to the lowest, that is not a prey to other animals of a minuter form, which infest its interior as well as its exterior.

—o—

DISEASES OF THE GENITO-URINARY ORGANS.

(Continued from page 63.)

Treatment of Stricture.

"6th. A dilator for widening the stricture after a small instrument can be passed through it; it is intended as a substitute for the bougies and sounds of former times.

"The chief objections to these instruments are, the painful friction, the danger of making false passages, the tediousness and imperfection of the cure, and that they cannot dilate any part of the canal beyond the size of its orifice, which, during health, is the narrowest part of it.

"The dilator consists of a tube of thin membrane introduced empty into the stricture, on a pointed wire, and then filled with fluid by a syringe, so as to dilate with any degree of force, from the mere filling of the part to the strain of the hydrostatic press, which will tear the strongest texture that disease can form.

"The dilating tube is about two inches long, and its near end is fixed to the point of a small catheter, through which the distending fluid is injected.

"The tube is formed of thin silk ribbon, of various sizes, with the edges joined.

"It is lined with prepared gut of the cat or dog, which is almost as thin as gold beaters' skin, although very strong and water-tight; and it is covered with the same, to give the smoothest and softest possible external surface.

"When complete, and enclosing the blunt wire, it is less bulky than the bougie which would be required for the same case.

"Thus it passes easily; it cannot tear the canal, or make false passages; it can enter through a small orifice, and dilate beyond to any desired extent; and its greatest advantage is, that by opening, so as to follow the yielding of the stricture, it can effect, at one application, what only a succession of hard bougies, with long treatment, could accomplish.

"In one day it has often removed disease, which had resisted other means for months and even years.

"Some practitioners and critics, not understanding the law of fluid pressure (explained at p. 229), objected at first to the dilator, that a little water or air pressed into it by a syringe would be unable to overcome much resistance.

"Had they seen the instrument lifting so readily as it does a heavy weight laid upon it, or snapping a strong ligature tied round it, they would not have had the prejudice.

"It was objected, also, that the instru-

ment would do mischief in urethral disease by dilating the canal before and behind the stricture, more than the stricture itself; now its dimensions being fixed, owing to its silken tunic, it never can distend beyond the diameter chosen; and, therefore, if of the proper size, it can only press on the stricture itself.

"It was also said, that this instrument requires, in the operator, greater manual dexterity and acquaintance with mechanical philosophy than many surgeons possess; but this is merely saying, that the arts are progressive, and that the accomplished surgeon, at the present day, is more dexterous and intelligent than his predecessors of a century ago.

"It is no reason why the delicate apparatus of the oculist should fall into disuse, that all surgeons are not able to apply it.

"Some attempts had before been made to construct a dilator of fluid pressure, but they produced nothing of value.

"For urethral purposes, a simple gut, or intestine, is worse than useless; for, being yielding in its texture, the surgeon can never know truly the size of his instrument, and, therefore, may do much mischief with it.

"Dr. Ducamp, in speaking of the dilator, allows that he did not first invent it; but then, from ignorance of what constitutes its true value, he takes praise to himself for simplifying and improving it, by throwing away the silk, and using the gut only. A variety of metallic dilators have been contrived, and used by English surgeons, since the publication of Dr. Arnott's Treatise on Strictures; but, although manageable with less trouble than the fluid dilator, they want its chief merits.

"The dilator is applicable to many other purposes, in surgery, besides that now mentioned: as for removing stricture of the gullet, or of the rectum, for checking hemorrhage in deep wounds, for dilating wounds, as a tent, &c.

"The operation of lithotomy was saved to a gentleman whom Sir Astley Cooper and the author were attending together, by the dilator opening a fistula in perineo, so that a large stone was extracted without cutting.

"The dilator has also served for opening the way for stones from the bladder.

"7th. Another improved means for the treatment of stricture, described in the Treatise, is a mode so as not to touch any other part of the canal.

"Formerly, the caustic was applied to the face of the stricture, and therefore had almost always to destroy a portion of the healthy canal before it could reach the contracted fibres; the extent of such portion depending on the distance from the contracted fibres to the part where the lining of the canal began to be drawn inwards by them.

"This explains why not unfrequently a hundred applications of caustic were made; a single application generally suffices.

"To accomplish this, a ring of caustic is placed (as described in the Treatise) on a bougie of a peculiar construction, about an inch from its extremity, and the bougie being then passed down to the stricture, through a tube or conductor, the point passes beyond the stricture, and carries the caustic to the very spot where it is desired to act."

The instruments of Ducamp, Lallemand, and Phillips, are modifications of Arnott's, and their mode of application may be seen by referring to the plates and letter-press description to be given in our next number.

It must be obvious to every practical surgeon, that they are infinitely superior to the unsafe caustic bougie of Sir Everard Home, which cauterizes the whole urethra, causes intolerable pain, spasm, hæmorrhage, and often inflammation of the bladder, perinæum, testes, &c. In some cases the spasm of the urethra dislodged the caustic, and it was necessary to cut down on it to extract it.

There are four methods in use for the cure of permanent stricture:—1. Gradual dilatation by bougies; 2. Forceful dilatation by sounds; 3. Cauterization; and, 4. Incision.

The profession is very much divided in favour of these remedies. British surgeons prefer dilatation; the French, and most other foreigners, cauterization. It is an axiom in this kingdom, that caustic should not be tried until dilatation has failed. Others maintain, that the treatment by dilatation with bougies, however well applied, is long, painful, and almost always palliative. The effects of bougies are three: to dilate, compress, and irritate. Catgut bougies were supposed to produce the first effect. When they were introduced into the urethra, they swelled, after having absorbed the moisture of the canal, and, consequently, they dilated or compressed the stricture. These are now generally abandoned.

Metallic bougies are generally preferred, because they enable the operator to make efficient pressure. Some recommend leaden bougies, others silver. Gum elastic bougies are not generally employed in this country, though they are useful in certain cases. All instruments of this sort, of whatever material, cause irritation, and more or less discharge of mucus. Caustic bougies ought, therefore, to be preferred, if this was a desirable object.

Sir A. Cooper, who is a strong advocate of metallic instruments, uses a conical silver one, and introduces two each day, one immediately after the other, the one being smaller than the other, and those employed the next day are still larger. He continues this plan daily, until he can pass an instru-

ment of No. 14. He first passes a wax bougie, warmed by the fire, for the purpose of ascertaining the seat and form of the stricture. By the daily use of two bougies, the size being increased, he states that stricture can be cured in less than a third of the time that it usually is. He says that it is not necessary to leave the bougie passed for any length of time. He condemns straight instruments. He is also opposed to caustic or armed bougies, unless when there is fistula in perineo, as otherwise they might cause retention of urine. He observes that the caustic alkali is more soluble than the nitrate of silver, and consequently more likely to do mischief.

The introduction of bougies is a much more delicate and difficult operation than is generally supposed. The best mode of performing the operation is as follows:—The patient is placed standing before the surgeon, who seizes the penis behind the glans, between the thumb, index, and middle fingers of the left hand, while he introduces the oiled bougie with the right hand. The penis should not be raised towards the abdomen, but extended horizontally, so as to render the urethra as straight as possible, and to efface its lacunæ or valvular-like folds. The bougie is then gently and cautiously introduced along the canal, it being turned between the fingers, until it encounters some obstruction. When its passage is arrested, we can easily distinguish whether the point of the instrument has passed the stricture, or is in front of it. In the latter case, the instrument should be withdrawn a little, then re-passed to the obstacle, and this plan repeated until the point has fairly come in contact with the stricture.

When the point of the instrument has arrived under the pubes, we should depress the penis so as to diminish the curvature of the urethra. We will facilitate its passage by pressing on its point, through the perineum, and directing it towards the neck of the bladder. When the obstacle to its passage is still further on, it will be advisable to introduce a finger into the rectum, for the purpose of guiding the instrument through that portion of the canal in which it is arrested. When the obstruction is within five inches of the orifice of the urethra, a straight instrument may be employed, but when near the neck of the bladder it may be necessary to bend the bougie to the curvature of a catheter. Sir A. Cooper holds, that in all cases the instrument ought to be curved, as otherwise its passage will be arrested, even in a healthy urethra, while Civiale, Costello, and Heurtaloup pass straight instruments with as much ease as curved ones.

The curve is immaterial, according to Macilwain, when the instrument is flexible. Mr. Stanley has well observed, that according to the natural course of the urethra, as indicated by dissection, the part of the ca-

theter or sound corresponding to the curve of the canal under the pubes should form a considerable segment of a circle, about $1\frac{1}{2}$ or 2 inches in diameter, and the remainder of the instrument may be perfectly straight*. Professor Cooper recommends wax or flexible metallic instruments as safest. The instrument should be as large as the stricture will permit, as every surgeon knows that one of a small size is passed with difficulty, and is likely to pass into the lacunæ of the urethra. Sir A. Cooper recommends a silver bougie or catheter; Mr. Macilwain the latter; while numerous surgeons of eminence employ instruments composed of zinc and pewter, which are flexible, and may be readily bent to any curve. Sir B. Brodie condemns leaden bougies, on the grounds that they might break in the urethra or bladder, and prefers gum elastic. Nevertheless, metallic bougies are most generally employed at present.

In all cases, we should proceed with great care and gentleness, as few can bear the introduction of a bougie for the first time, or when the urethra is irritable, without suffering some pain or uneasiness, and sometimes even fainting, rigors, cold sweats, &c. Mr. Hunter described a case in which the patient could not after several weeks bear the instrument longer than eight or ten minutes at a time. The instrument cannot be borne longer than a minute or two by some persons; but by its frequent use, it may be worn for a period from a quarter of an hour to two hours. Some use it twice or thrice a week, others employ it daily. When the instrument is allowed to remain for an hour or two, it should be secured round the penis and loins. When we pass the stricture, we ought to be cautious in advancing the instrument towards the bladder, because the portion of the urethra between the obstacle and neck of the bladder is generally irritated or inflamed, and the presence of the instrument will excite pain, which will extend to the prostate, bladder, kidneys, &c., excite the sphincter, and close the neck of the bladder, and cause retention of urine. When the stricture is so dilated as to admit a large bougie, we should be careful not to dilate the canal behind it, unless this be necessary, which is seldom the case. The belled bougie, proposed by Ducamp, will only dilate the strictured part, and not the portions of the canal anterior or posterior to it. This is an evident advantage. Whatever may be the form of the stricture, whether it exist in one or many points, or in the whole circumference of the urethra, the pressure of the increased size bougie will widen the canal, compress its parietes, and flatten their projections. Delpech passed a catgut bougie in some cases, allowed it to remain for two hours, removed it, and introduced a

large one*. But it may require a long time, from one to twelve months, to effect a cure by dilatation†. The patient, as well as the practitioner, must have patience. In some cases, great pain is produced, which may cause retention of urine, inflammation of the testicles, and, if the instrument be passed in a wrong direction, it will make false passages, which may cause urinary abscesses, fistulæ in perineo, and inflammation of the prostate gland. Few persons will submit to such long treatment. In some instances the instrument must be worn day and night, the patient is obliged to withdraw it to void his urine, and very often may not be able to re-introduce it, or may suffer from want of sleep on account of the irritation it produces. The irritation caused by bougies, in all cases, may be followed by inflammation and stricture, by the very disease for whose removal they are employed. Many also consider that these instruments predispose to the re-appearance of stricture. M. Ducamp maintains, first, that "this treatment is uncertain and often impracticable; second, that it is painful and very tedious; third, that it is never more than palliative." His predecessor, M. Cho-part, graphically points out the difficulties and dangers incidental to this method of cure‡.

It often happens that after one stricture has been dilated, we discover another further on, which will require a smaller instrument than we have lately used; and then the pressure being removed from the first, a relapse may speedily take place. It therefore appears, in such a case, that we must be always commencing this plan of treatment. Again, we may excite an urgent desire to pass urine, or a pain at the neck of the bladder, which may continue for hours or days. Frequent and painful erections, dysuria, pain extending from the bladder to the vesiculæ seminales, thence to the vasa deferentia, testicles and inguinal glands, are often induced by bougies. Finally, the stricture generally returns in a year or two, and this fact has led Stoll and others to reject bougies and sounds altogether.

This conclusion, however, is invalid, because the relief afforded for the time specified is much better than no relief at all, or than all the misery which would be endured without them. Hunter, Sæmmering, and Boyer, consider dilatation an uncertain and palliative treatment only.

Treatment by Sounds or Catheters.—Sounds have been used in the treatment of strictures from an early period. Those of the Romans, as described by Celsus, b. vii, c. 26,

* Clinique de Chir.

† Richerand Nosographie Chirurg. t. iii, p. 507.

‡ Traite des Maladies des Voies Urinaires.

* Macilwain on Strictures, &c.

were made of copper, and varied from 9 to 15 inches in length. Some of these had two curves, and resembled those invented, at a more recent period, by J. L. Petit. This surgeon proposed an instrument shaped like an *S*, as he frequently observed a sound with one curve, when left in the bladder, caused inflammation and ulceration. This instrument was at length superseded by the gum elastic catheters. Various compositions were proposed for sounds previously to the use of gum elastic. Van Helmont proposed a copper wire covered with glue*, Fabricius Abaquapendente one of horn, and Tolet described one of silver wire made spirally†. Macquer proposed caoutchouc, or gum elastic‡.

Sir E. Home made many experiments to discover a method by which elastic sounds might be brought to a fixed curve. The object of using sounds is to pass them into the bladder and force them through any obstacle that might exist in the urethra. Every one acquainted with the structure of the urethra must at once admit that forcing a sound or catheter through a stricture is a most dangerous operation, may cause false passages, perforate the bladder, prostate, or rectum, and do irreparable mischief. The experienced surgeon is well aware that catheterism is often one of the most difficult operations he has to perform. The urethra under the pubis is differently curved in different persons, on account of the width or closeness of the arch of the pubes. Hence the necessity of the different curves of catheters. The curvature of the urethra also varies in each individual, according as the bladder is more or less distended, or the prostate enlarged. The diameter of the urethra is about four lines, on the centre of which the beak or point of the instrument is to pass, and, if force be used, the parietes of the canal may be readily perforated, and a false passage made. This may also happen when the lacunæ are large, or the stricture is indurated. The danger would of course be increased when, instead of one, there are two or three obstacles. We must, therefore, I think, fairly conclude that forced catheterism is a most hazardous operation. Even Dessault perforated the rectum§. Chopart, Ducamp, Sir C. Bell, and a host of others, described false passages and other serious injuries caused by catheterism.

I have already stated, in describing the treatment by bougies, that the presence of a foreign body in the urethra excites irritation and inflammation, which oblige us very frequently to discontinue that plan of treat-

ment. But inflammation was always more intense in the treatment by sounds or catheters, as these used to be left in the urethra for twenty-four hours at a time, while the bougies were only left a few instants. The consequence was that one or more points of the canal became irritated, and the contact of a hard substance predisposed it to inflammation, and this last disease was preceded by acute pains, pain and difficulty in voiding urine, and, finally, swelling of the penis. It then became necessary to remove the instrument, to recommend repose, fomentations, baths, cataplasms, leeches, &c. In a great number of cases inflammation of the testicle and inguinal glands followed. These may be also induced by bougies, as already stated, but more frequently by sounds, which cause more irritation.

Abscesses about the urethra, perineum, and prostate, were frequently caused, as also fistulæ. Dessault and Chopart were of opinion that such abscesses should be left to nature, because they held that the urine could not get into them by keeping a catheter in the bladder and drawing off that fluid. Ducamp, on the contrary, states, that in many cases the urine will pass between the instrument and the canal, and readily find its way into the abscesses in question. Sir Charles Bell has known several cases of ulceration of the urethra extending to the neck of the bladder, induced by the continued presence of a catheter in the urethra*. Profuse suppuration has also characterized such cases, though the advocates of this plan are loud in their condemnation of cauterization, in consequence of its destroying the urethral mucous membrane. The presence of a sound in the bladder every day for a period of two or three months, must inevitably excite inflammation of the mucous membrane of that organ, more especially in aged persons, and ultimately induce catarrhus vesicæ. I agree with those who maintain that stricture is more likely to return after the use of sounds than of bougies. It appears evident that the treatment by sounds is much more painful and hazardous than that by bougies, with this additional inconvenience, that a palliative or temporary cure only is effected. The dilatation caused by sounds, though more suddenly established, is not more permanent than that produced by bougies. The fact is, when strictures are indurated, and the power of absorption greatly diminished, both these instruments can do little good until they have been employed for several months. It is only in the early stage of the disease, before the tissue is indurated, that absorption can be promoted, or at least is most available; but advice is seldom sought for until the disease has been long established. Under such circumstances, the most effectual

* De Liathiasi.

† Tr. de la Lith.

‡ Mem. de l'Acad. des Sciences, 1768.

§ Dechamps's Tr. Histor. et dogm. de l'Operation de la Taille. See, also, Hunter on the Venereal.

mode for removing the obstruction is by destroying it with caustic or by a cutting instrument. This plan is now most generally employed on the continent, and is termed—

Treatment by Destruction.—The plan of treating strictures by bougies and sounds was generally found ineffectual by surgeons, who at length concluded that some other remedy should be adopted, which should be capable of destroying the obstruction without injuring the sound portion of the urethra. Two methods were proposed to accomplish the object in view; the one was to effect ulceration of the stricture by mechanical means; the other to destroy it by chemical agents.

The first method was attempted by passing bougies or sounds, and pressing these with considerable force upon the stricture from before backwards, and from without inwards. This plan was open to all the objections urged against bougies and sounds. If these caused acute pain, inflammation, abscesses, false passages, &c., they were more likely to do so when used with greater force, and when they were of greater volume and strength. Dessault, Chopart, and Hunter forcibly described the inconveniences of this plan, and related instances in which the urethra and rectum were perforated. It appears by the records of surgery that such injuries were often inflicted, and to obviate or prevent them, chemical agents were finally resorted to—and these were different caustic substances.

Treatment by Caustics.—Caustics were employed from a remote period, but they were chiefly used by Aldereto, Phillip, Amatus, Lusitanus, and Alphonso Ferri. The caustic preferred by these was composed of the following ingredients:—Verdigris orpiment, vitriol*, and roche alum, of each ζ ij; these were mixed with vinegar, exposed to the sun until dried, then moistened with vinegar, and mixed with ζ ij of lytharge and ζ iv of rose oil: they were next reduced to a proper consistence. This caustic was used as follows:—A wax bougie was passed to the stricture, an impression taken, the instrument withdrawn, the caustic applied to the indented part of it, and this was surrounded with wax. The instrument was then oiled and re-introduced.

But it was soon discovered that the wax bougie was too flexible, that the caustic came in contact with other parts of the urethra besides the strictured portion, and that violent urethritis was produced.

Ambrose Paré considered that retention of urine was sometimes caused by caruncles and carnosities, and that these ought to be cut and broken down with sounds, which he describes, and then destroyed with caustic. His instrument was a canula†, through

which he passed the following caustic powder:—Savin, ζ ij; ochre, antimony, and tutty, of each ζ ss. He terminated the treatment with bougies of wax or lead. He also used the caustic already described. Loyseau successfully treated Henry IV. of France, by this method*. Wiseman had recommended the application of nitrate of silver, by means of a canula, which was afterwards repropounded by Mr. Hunter. That great genius was not aware that the practice had been tried before him. There is a good excuse to be urged for him, and that is, that he thought for himself, and had scarcely any knowledge of the information afforded by the works of former writers. His nephew, Sir E. Home, however candidly admits that Wiseman had proposed the plan a century before his illustrious friend†. I have already described the caustic, or armed bougie, proposed by Mr. Hunter, and known to every surgeon. I have now to state, that its application, when judiciously made, causes such slight pain, that patients cannot distinguish it from that produced by a common wax or metallic bougie. In other instances, the whole urethra may be cauterized, and the pains the most acute.

The eschar, or slough, usually comes away in a day or two, in the form of a whitish pellicle. After the second or third application, there is more or less blenorrhagic discharge, in consequence of the inflammation produced by the caustic. The number of applications necessary for a cure will vary, according to the size and duration of the stricture: four, six, ten, or twenty, may be requisite in ordinary cases; but when the disease is of long standing, a hundred, or even double this number, may be necessary. Sir E. Home described such cases, in one of which the caustic was used 1,250 times (Treatise on Strictures, v. iii. p. 119). As the anterior part of the stricture only is cauterized, the patient perceives no amelioration until the posterior extremity of the obstacle is destroyed, and then the urine flows in a full stream.

The cures obtained by caustic are much more durable than by bougies or sounds. Many patients have no return of the disease for five, seven, or ten years; while many are radically cured. In other cases, the disease may return after a year or two. Sir Everard Home was of opinion that the return of the disease was to be ascribed to this, that the whole of the stricture was not destroyed by the caustic. Mr. S. Cooper has known many relapses after a cure had been apparently effected by bougies; Boyer corroborates the same statement‡, and Delpech asserts that the cure is only temporary§. Macilwain observes, that the gradual re-

* Observ. Medicinal and Chirurg., 1617.

† Home on Stricture, vol. i. p. 125.

‡ Malad. Chir. t. 9, p. 227.

§ Chir. Clinique, t. i, p. 273.

* It is not stated whether white or blue.

† B. xix. c. 27.

removal of stricture does not always prevent its recurrence*. Such are the advantages of the treatment by the armed bougie, and they are great and incontestable. Nevertheless, this treatment is often productive of serious mischief. The inconveniences attending this plan are, the difficulty of destroying the whole stricture from before backwards, complete retention of urine, the liability to make a false passage, the danger of a formidable hæmorrhage, and, lastly, the probability of rendering the disease more obstinate and intractable.

I shall now examine these and other objections to the use of the caustic bougie. When the urethra is in a quiescent state, its parietes are in close contact; so that, on introducing an instrument, it separates them, and the caustic in the point of the bougie inevitably touches the surface of the canal in its passage on to the stricture. The urethra often, I might almost say invariably, contracts on any kind of instrument that is introduced into it; but, as its walls are in immediate contact, they must be inevitably touched by any thing that separates them. It is, therefore, manifest, that however rapidly a caustic bougie may be introduced, it touches the whole surface of the urethra, from its orifice to the stricture, and injures the sound as well as the diseased part of the canal. To this it has been replied, that the instrument may be passed so suddenly as to leave scarcely any time for the caustic to act in its passage; but still it acts, however slightly. If we apply nitrate of silver as quickly and as slightly as we can, on an external ulcer, the surface becomes instantly white, which proves the sudden action of the remedy. The same thing happens on passing an armed bougie. We observe, immediately after its use, that the patient complains of heat or pain along the urethra, and scalding on passing urine. On the next day, the symptoms will be more severe, and there may be a blennorrhagic discharge.

The advocates of caustic bougies suppose that this discharge is caused by the effect produced on the stricture, and not on the urethra anterior to it; but, granting them this, it is no answer to the objection urged. The discharge, according to their own showing, must be impregnated with the caustic when re-applied, and, therefore, must inflame the urethra in its passage onwards.

It is not unusual to observe, during the treatment with caustic bougies, the expulsion of whitish membraniform productions; and these will frequently present a tubal form. Such productions have been often observed by Ducamp†. They are caused by the action of caustic on the part of the urethra between the meatus and the ob-

stacle. When these eschars are detached, the canal presents an extended excoriation, and the urine, in passing, causes the most severe pains and smartings.

The part of the urethra anterior to the stricture may be most severely injured by the caustic, when it escapes from the bougie, and remains in the canal. Ducamp well observes, that the carelessness of the English surgeons is truly surprising, as they have not as yet found a means of fixing solidly a small piece of nitrate of silver in the end of a bougie. This is a matter of such little difficulty, yet the expedient that they employ is so imperfect*! In fact, the bougie is softened by the heat of the canal, the small portion of wax, which surrounds the nitrate of silver, has lost a great part of its consistence; moreover, the humidity of the canal may pass between the wax and the caustic, dissolve a part of the latter, and, therefore, the caustic affects the urethra. On one occasion Sir Everard Home attempted to remove the piece of caustic which had fallen into the urethra, by passing a bougie. The piece of caustic, which is detached, is about three or four lines in length, and two lines, or less, in diameter; it destroys half an inch, or more, of the urethra, gives rise to an infiltration of urine into the cavernous portion of the penis, causes frightful hæmorrhage, and, finally, a cicatrix, which impedes the flow of the urine.

One of the chief objections to this mode of treatment is, not to pass the instrument into the bladder until the treatment is on the point of being completed. We may diminish the size of the stricture without augmenting the opening; and if, in such cases, the application of the armed bougie produces inflammation, and complete retention of urine supervenes, then catheterism is much more difficult than in ordinary cases. Sir E. Home was frequently embarrassed by this event; and he was obliged to puncture the bladder in six such cases†.

It has been already stated, that we cannot, in general, pass a straight and inflexible instrument further than five inches, or five and a quarter, from the meatus, on account of the curve of the urethra; and, it therefore follows, that an armed bougie will not pass onwards in the canal, but form a false passage beneath the curve and towards the rectum. This will most probably happen in those cases in which the caustic is applied several hundred times. Indeed, Sir E. Home confirms this conclusion when he says, "It is an operation in the dark, and the most skilful operator may sometimes be mistaken." Besides, the repeated introduction of the armed bougie, must inevitably disorganise the mucous membrane of the

* On Strictures of the Urethra.

† *Traite des Retentions d'Urine*, p. 168.

* *Op. cit.*, 169.

† See vol. ii, p. 323, and vol. iii, p. 2.

urethra, for the reasons already assigned. The inferior part of the urethra will be most affected by the caustic, which becomes dissolved during the operation; and hence there will be a false passage under the natural one. This will happen in those cases in which a great number of applications of the caustic are indispensable.

The next objection to this mode of treatment is, the induction of hæmorrhage from the urethra, to the amount of several pints in some instances. Profound syncope, and great prostration of strength, have succeeded; but it rarely happened that life was destroyed. The blood may find its way into the bladder, form a clot, and cause complete retention of urine. Sir E. Home states, that such clots are generally dissolved by the urine in the course of twenty-four hours. He advises, that the hæmorrhage should be left to itself; and he cites a case, in which the bladder was entirely filled with blood*. Sir A. Cooper, with more judgment, applies a compress on the urethra, in its course beneath the pubes; and, in one case in which the hæmorrhage returned, he divided the artery of the bulb†.

Another inconvenience arising from the use of the armed bougie is, that the stricture may be rendered more obstinate and intractable. This may occur after several applications of the instrument; as, in such cases, the mucous membrane, anterior to the obstruction, will be destroyed, and a firm contraction or stricture induced. This fact is well known to those who have had much experience in the use of the caustic bougie; and, also, that such indurations will seldom yield either to this method or that by dilatation. It is also a well known fact, that the general health suffers, and that this plan may be followed by all the worst consequences which are detailed in this essay.

The objections to the armed bougie of Hunter, are still greater to the caustic potass instrument of Whately. This generally produced the worst consequences, on account of the greater solubility of the pure potass, so that it has been long since abandoned in this country‡. It had little effect on the stricture. Sir Charles Bell relates the case of a man to whose stricture it was applied, and who died of inflammation of the lung. On examination, he states that "no spot, no abrasion, no slough, were to be seen, the bridle of the stricture remained sharp and fine." (Treatise on the Urethra, p. 357). Such was the mode of applying caustic until 1822, when M. Ducamp pro-

posed his unobjectionable method, which I have already noticed.

This ingenious surgeon invented proper instruments for applying caustic, and these, as well as his graphic description of the pathology and treatment of stricture, were most favourably received by the Institute of France, and declared to be the best ever offered. M. Ducamp, after the most minute examination of the anatomy, pathology, and modes of treating strictures of the urethra, proposed this problem: "*To destroy the morbid disposition of the parts which form the stricture; and to place them again on a level with the rest of the canal.*" He adds, "If we can destroy the parts that constitute the stricture, we obtain a thin, elastic cicatrix, and re-establish the passage, as large as the canal in a state of health, we shall have, I think, obtained our object*." And, according to this author's view, the caustic ought to be applied to the stricture only from within outwards over its whole extent, and without touching any other part of the urethra; for example, when the opening of the stricture is inferiorly, we should destroy all that part which is between the opening and the superior wall of the canal, without touching the inferior wall, and the reverse. When the parietes of the stricture are two, three, or more lines in length, they should be touched from before backwards along their whole extent; but, before we use the caustic, we should ascertain the site of the aperture of the obstacle, and the extent of this last. M. Ducamp acquired this knowledge by the following ingenious mode of investigation:—

He took, with an instrument of his own invention, which he names *sonde exploratrice*, an impression of the stricture; this impression is formed exactly by the stricture, and enabled him to know with mathematical precision the parts which are to be destroyed, and during the progress of the cure, all the changes that the obstacle has undergone.

It appears, however, from the statement of Dr. Arnott, already given, that our Gallic contemporary had borrowed his ideas from Dr. Arnott; though I think it must be acknowledged that he improved upon them. His description of stricture is far superior to any that had preceded it.

The next instrument he invented was a conductor; this was a gum elastic tube pierced at the extremities, with a scale on its surface, to indicate the extent which the instrument might penetrate. He passed this instrument to the obstacle, and when the stricture is superiorly, inferiorly, or laterally, he used one furnished with an eminence at its extremity, which is turned downwards when the stricture is above, and the reverse. This instrument enabled the operator to pass

* Work, vol. iii, p. 257.

† Lectures on Stricture, 1824.

‡ Sir B. Brodie prefers it, however, to the nitrate of silver.—Lectures on Diseases of the Urinary Organs. 2nd Ed. 1835.

* *Traité des Retentions d'Urine*. Par Theodore Ducamp, M.D., &c. Paris, 1825.

a bougie through it, and to touch any kind of obstacle in the urethra with the greatest facility. M. Ducamp invented another instrument with a small head, to be passed through the conductor and along the stricture, so that the extent between this head and the extremity of the conductor, indicated the length of the stricture. But he used a more simple contrivance, a bougie with soft wax on its extremity, on which the stricture made an impression, which indicated the form of the obstacle. Having acquired an accurate knowledge of the form and extent of the stricture, he applied his *porte caustique*. This instrument is composed of platina at the extremity, in the side of which the nitrate of silver is fused with a blow-pipe. This passes through the conductor, and may be applied to the stricture wherever situated, if within five inches or more of the urethral orifice, by turning it round between the fingers. By this proceeding, the part of the canal anterior to the stricture is not touched by the caustic. The stricture is cauterized from before backwards in all its extent, and of course from within outwards.

Two applications were sometimes sufficient to destroy the obstruction; sometimes a third was necessary, but very rarely a fourth, and during each one-tenth of a grain of nitrate of silver was employed. Having destroyed with precision the stricture, M. Ducamp proceeded to fulfil the second indication, to restore the canal to its natural state, about four lines in diameter. He employed two instruments for this purpose—a *dilator* and a *bellied bougie*.

The dilator consisted of a pouch of 15 or 18 lines in extent, which, when inflated, expanded about 4 lines. Its pressure is temporary, and therefore the bellied bougie is employed at the same time. This is a common bougie, on the part of which that corresponds to the strictured portion of the canal is a protuberance or belly, from two lines and a half in diameter, and 12 or 15 lines in length. This projection is placed against the side of the stricture, which it distends, while the rest of the instrument is adapted to the size of the urethra.

There is some difficulty in passing the instrument through the orifice of the urethra, which is about $2\frac{1}{2}$ lines in diameter; but as it is dilatable, it readily expands and allows the bougie to advance. M. Ducamp states that he has dilated a stricture in three days with bellied bougies, varying from two lines to four in diameter, for which the ordinary mode of dilatation had been unsuccessfully practised for two months. Thus observe MM. Deschamps and Percy, the reporters to the Institute—"M. Ducamp arrived at the end proposed; he has found the means of destroying, with the greatest precision, the obstruction of the urethra, without injuring the sound parts of the canal, and obtained a cicatrix of four lines in diameter. It ap-

pears to us that he has discovered a mode of treatment more short, more simple, more certain, more reasonable, and we think that M. Ducamp has acquired real claims to the confidence of the sick, the gratitude of the profession, and that his work deserves the eulogies of the Academy."

The limits by which I am circumscribed in this essay prevent me from quoting this author as I could wish, and I must content myself with the extracts now made. I may observe that his practice is now universally adopted on the continent of Europe, and has recently been improved upon by Mr. Phillips, in his work on Diseases of the Urethra. I have already noticed the improvements suggested by M. Lallemand, namely, insertion of a curved *porte-caustique* when the stricture is more than five inches from the urethra, and this Mr. Phillips has also introduced in place of his own. It is right to state that the caustic is applied by Ducamp and Delpach for about a minute, and sometimes less, and the eschar is expelled in three, four, or six days. When the stricture is reduced he explores the urethra towards the bladder, and when he discovers a second or third obstruction he cauterizes the latter at the same time as the former, and in this way he cures both in a very short space of time, and with little additional pain to the patient.

Some surgeons object to dilatation, and contend that it excites inflammation, which reproduces stricture. We should, however, be guided by the effects caused by bougies, and be cautious in using them, if irritation or acute pain is produced.

During this or any other treatment of stricture, the general health should be attended to, the diet should be more nutritious, all spirits, wines, and fermented liquors avoided; demulcent drinks, general or local baths, and sometimes leeching employed. It is right to mention that stricture may return even after cauterization, so that it would be prudent for the patient to pass a bougie once a month, to ascertain the condition of his urethra. In general, false passages soon disappear when the urethra is restored to its ordinary calibre.

I have already stated, that the potassa fusa is seldom used by the majority of British surgeons at present; but it is proper to mention, that it is very strongly recommended by Mr. Macilwain in all cases in which there is severe pain in the stricture, and the effusion of blood after a bougie is withdrawn. He has used the remedy in all cases of this kind, and has never had reason to regret the practice. Mr. S. Cooper, on the other hand, condemns this caustic, in strong terms, in his Dictionary of Surgery. The former states, that the nitrate of silver is now seldom used, and that it is superior to the potass in those cases in which there is no pain in the stricture before or after the use of a bougie. He never employs it

more than three or four times, unless benefit is derived from its use. The interval between each application must depend upon the degree of irritation excited in the urethra. This rule applies equally to the use of unarmed bougies or sounds. Some persons will bear the caustic once or twice a week; others, not oftener than once a fortnight.

Mr. Stafford is of opinion, that a bougie should not be passed oftener than twice a week; and, if there be any inflammation, a wax or an elastic instrument ought to be preferred. But, afterwards, he prefers the metallic or silver catheter—"having observed, that the cure of stricture, by these instruments, is more permanent; they resist spasm, and you have more command over them."

When stricture has existed for a long time, and nearly closes the urethra, the patient is often unable to pass urine, except in drops; he strains violently, and suffers extreme agony. His general health becomes injured, and he is finally affected with complete retention of urine. Under such circumstances the bladder will become distended, and much bent, unless a catheter can be passed, or a puncture made into it. In such cases the surgeon must adopt one of these plans; he must endeavour to pass a catheter into the bladder, and, if he cannot succeed, put the patient in a warm bath, employ venesection, leeches, or fomentations. If these fail, we must puncture the bladder, or cut down on the stricture, incise it, and then introduce a catheter into the bladder. Of these methods, catheterism and incision of the stricture are now most generally employed. When the first fails, the second must be practised, or the bladder must be punctured.

—o—

Reviews.

The Cyclopædia of Anatomy and Physiology.
Edited by Robert B. Todd, M.B., Lecturer
on Anatomy and Physiology at the Westminster School of Medicine. Part II. August, 1835. London: Sherwood, Gilbert, and Piper. Illustrated with numerous Engravings.

THE favourable opinion we pronounced on the first part of this work is confirmed by the execution of the part now before us. The just tribute of praise we bestowed on the respectable publishers of it is now amply increased by the typographical execution of the present fasciculus.

The present number contains the following articles: Animal Kingdom concluded, by Dr.

Grant; Animal, by Dr. Willis; Ankle, Region of, by Dr. Brennan; Ankle, Joint of the, by Same; Ankle Joint, abnormal condition of the, by Robert Adams, Esq.; Annelida, by Dr. Milne Edwards; Anus, by Robert Harrison, Esq.; Aorta, by Dr. Hart; and Archnida, by Dr. Audoin.

We have perused all these articles with great attention, and can consistently declare that they are executed in a manner not excelled and seldom equalled by writers in the most popular cyclopædias of modern times. They are worthy of British and foreign authors, and are in exact accordance with the present state of science in all civilized countries.

The announcement and scientific execution of the work is highly creditable to its editor and publishers, and honourable to this country. Every article is treated in the best manner; many illustrated as close to nature as it is possible for art to accomplish, and a mass of information presented, which can only be found in an immense series of foreign and British works. This cyclopædia is a library in itself, and ought to be in the possession of every medical practitioner. We take no small degree of credit to ourselves for the manner in which it is executed. We felt it our duty to criticise many blemishes and defects in a work somewhat similar in point of issue, from the same source. We complained of many articles as totally unworthy of that work, while we praised all that deserved commendation. Other reviewers were more accommodating: their unbounded adulation was disgusting, and they praised articles that ought to have undergone a fiery or fundamental ordeal; in fact these were unparalleled. Now, this kind of wholesale praise does a work more harm than good; and we know from a vast number of sources that it was ridiculed and despised. Our strictures, however, though unpalatable amidst such false praise, effected improvement; the faults we exposed were corrected, good was one, science was benefited, and all grounds of complaint entirely excluded from the succeeding publication now before us.

It is true that great allowance ought to have been made for a production of the kind to which we have alluded, but the selection of

the contributors was by no means fortunate. Dr. Todd has been more judicious, and the result is, that his *Cyclopædia of Anatomy and Surgery* is so admirably executed, as almost to set criticism at defiance. If the future parts equal the present, the work will be a monument of science and industry, an ornament to the literature and science of the age and country in which we live.

It is scarcely necessary to observe, that productions of this kind do not admit of analysis. To attempt it with justice to our readers or the authors, we should republish the whole of the work. This would be obviously impracticable. We must therefore content ourselves, with an honest and fearless expression of our opinion of it, with which our readers must be satisfied, until they can judge for themselves by possessing the original as early as possible, which we strongly advise them to do.

In conclusion, we have to state, that in our judgment every one of the writers whose names appear in a preceding sentence has performed his part with the greatest credit to his scientific reputation.

—o—

Summary of Orfila's Observations on the changes which occur in the Tissues of Dead Bodies after Interment. Appended to Sédillot's Manuel de Médecine Légale. Translated from the French, for this Journal.

(Continued from p. 28.)

THE abdominal cavity never contains any fluid, except such as may have been effused before death; on the contrary, the viscera have a tendency to become progressively drier, and they present very little humidity a few months after inhumation. The state of the organs contained within the abdomen is such, as to surprise those who are little accustomed to researches of this nature: while the abdominal parietes are entire, the subjacent viscera preserve their integrity, their shape, and even their relative position; on opening the abdomen, all the contained parts are easily distinguished, till the parietes are nearly in contact with the spine, and the viscera much diminished in volume. Later than this, the confusion is greater: the liver, spleen, and kidneys are recognised, rather by their situation than their form; and, in place of the alimentary canal, nothing is found but a mass of shrivelled membranes, which are evidently the remains of the stomach and intestines, because, on separating them, the cavity of the former, and part of that of the latter, are restored. These dry layers are

of a greenish brown colour, thin, and perforated at certain points; the cavity of the intestinal canal cannot be restored throughout the whole, nor even the greater portion of its length, and we can no longer distinguish its different parts and constituent tunics—still less can we detect any morbid alterations that may have resulted from the disease which proved fatal. Still later, we discover nothing but a dry foliated mass, the interior of which is often full of worms, and which may be separated into coraliform filaments: at one part only of this mass some vestiges of the cylindrical shape of the intestinal tube may be recognised. Finally, as we have already observed when speaking of the parietes of the abdomen, there remains nothing in its cavity but a small quantity of black matter, resembling the grease of a wheel.

The Limbs.—During the first weeks the limbs present nothing remarkable. The skin is deeply coloured, except on those parts of the arms which are in contact with the thorax and abdomen: here it preserves its natural colour, but is covered with an adhesive reddish mucosity, which appears to glue the arms to the trunk; and, when these parts are separated, the epidermis is detached. At a more advanced period, as the integuments and muscles putrefy, the bones become partially denuded, but retain their articulations, since the ligaments are not yet destroyed. At this time those portions which retain their flesh, are found in two different states:—1. The soft parts are impregnated with earth, white mould, and the debris of the cloth in which the body has been enveloped; they have the appearance of a solid substance, foliated, and as if cancellated externally, under which hollow spaces are observed. This substance is evidently formed of fibrous and aponeurotic parts, without the least trace of adipocere; when it is cut into, a considerable number of worms and flies escape. Sometimes, also, this layer is of a stringy texture, and cellular appearance, unctuous to the touch, one or two inches thick in many parts, and covered externally with a crust of adipocere; while, internally, it resembles rotten wood, except that the filaments composing it are moister, and present here and there the characters of the animal fibre. 2. The soft parts are reduced to a thin, dry, grayish stratum, covered, in some places, with white mould, and divisible into two laminæ, of which the external appears to consist of the skin, and the internal of the aponeurotic parts, or at least of a layer equally thin: the internal lamina is spongy, stringy, dry, and of the colour of tinder; neither vessels nor muscles are any longer distinguishable in its substance.

At a more advanced period, the bones are detached from their connections by the smallest effort, the ligaments offering very

little resistance, and only a few remaining filaments of the soft parts keeping them together: in a little while the bones no longer retain their connexion, though they preserve their relative position; and, finally, when all the bonds of union are destroyed, they become completely separated, and are found scattered in the coffin, the winding sheet, or the earth.

Coffin.—*Cæteris paribus*, the thinner the wood of which the coffin is made, the sooner it is decomposed. In general no change is observed, even in thin coffins, till the end of several weeks. The internal surface of the lower board at first assumes a blackish gray colour, spotted with black; it becomes mouldy, especially where the head and back rest upon it, and there is a considerable quantity of a brownish and very fetid pulp, covered in many places with worms, larvæ, and eggs: soon after, the external surface of the lower board becomes coloured, and covered in the same manner. The sides of the coffin are inclined outwards, and somewhat bent; they are brown, or here and there gray, and lined, as it were, with larvæ. The bottom of the coffin soon becomes perforated in several places, and seems as if worm-eaten; the wood around the perforated parts is black, and has a greasy appearance: here, also, a shining, fatty matter, not so dark in colour, is sometimes to be seen. Lastly, we find, in the bottom of the coffin, thousands of larvæ, and of worms, some of which are ten lines in length. At this time the lid is sunk, and broken in several places, so that the earth has reached the bottom of the coffin. Later than this, it is difficult to raise the coffin without breaking the sides and lid; the fragments of these parts are variously coloured, especially on their inner side, with yellow, white, black, and wine colour, and, in some places, resemble the interior of an old cask; the wood is so rotten, that it may be crumbled between the fingers. Finally, the coffin becomes so fragile, that it can only be removed by small fragments.

According to our experiments, the coffins were in this state at the expiration of thirteen or fourteen months, when they were made of thin deal; but when constructed of the same wood an inch in thickness, they remained entire, and were scarcely coloured yellow, externally, at the end of two years.

(*To be continued.*)

—o—

THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

THE fifth meeting of the British Association is now being held in Dublin, and commenced Monday, the 10th instant.

The increasing success of the Association is a gratifying proof that the objects ori-

ginally contemplated—to promote personal intercourse between men of science—to make them quickly acquainted with each other's views and discoveries—to elicit oral discussion upon contested points—to procure, by special request, reports on the existing state of science in its several departments, with suggestions for future improvements, &c.—have been, in a large degree, attained. The members of the association, at the first meeting held in York, amounted to three hundred and fifty; when the society assembled at Oxford in 1832, the number was about seven hundred; the meeting at Cambridge was attended by more than nine hundred; the numbers last year at Edinburgh amounted to twelve hundred and ninety-eight; and it is confidently expected that the meeting in Dublin will not, in any respect, be inferior to those which have preceded it, though many who would have taken an active part in its proceedings, will be detained in London by the unusually protracted session of parliament; a circumstance which could not have been foreseen when the day of meeting was fixed.

The Rules of Admission to the Society were the following:—Fellows and Members of chartered literary and scientific societies, publishing transactions, were entitled to become members of the association, on subscribing an obligation to conform to its rules, and paying their subscription or composition. Office-bearers, members of council, or managing committees of philosophical institutions, and other members, recommended by such councils, were entitled in like manner to become members of the association if duly recommended and approved of by the General Council. The annual subscription is 1*l.*, paid in advance upon admission. The composition, or life-subscription, is 5*l.* Members, and candidates for admission, applied at the Examination Hall of Trinity College.

The officers of the Association for 1835 are—

President—Rev. Bartholomew Lloyd, D.D. Provost of Trinity College, Dublin.

Vice Presidents—Lord Oxmantown, and Rev. William Whewell.

Secretaries—William Rowan Hamilton, Astronomer Royal of Ireland, and the Rev. Humphrey Lloyd, Professor of Natural Philosophy.

Treasurer—Thomas Henry Orpen, M.D.

The following was the order of business:—

The meetings of the General Committee were held in the rooms of the Royal Irish Academy, 114, Grafton Street, nearly opposite the College. The first meeting was held on Saturday, the 8th of August, to make the necessary arrangements for the business of the week.

The Examination Hall of Trinity College was the place of general rendezvous, for supplying information to strangers, and is-

uing tickets. Ordinaries were provided for the accommodation of the members, in convenient situations. Plans of these ordinaries were exhibited every morning in the Examination Hall, so as to enable members to select their places. Lists of lodgings were likewise exhibited in the same place.

The Association is divided into six sections, which meet every day during the week, between the hours of 11 A.M. and 3 P.M., at the following places:—

SECTION A.—*Mathematics and General Physics*, at the Philosophy School, Trinity College, situated over the Dining-hall.

SEC. B.—*Chemistry and Mineralogy*, at the Chemical School, Trinity College, situated at the east end of the College Park.

SEC. C.—*Geology and Geography*, at the theatre of the Royal Dublin Society. The house of the Royal Dublin Society is in Kildare Street, and was formerly the residence of the Duke of Leinster: it contains an excellent library and museum. Members were allowed to pass into Kildare Street, from the College, through the Fellows' garden, a door from which opens nearly at the top of the street, and thus the advantage afforded by the use of these excellent rooms was not neutralized by their want of concentration.

SEC. D.—*Natural History*, at the Board Room, Royal Dublin Society. The museum of this institution is rich in objects of Natural History, affording favourable opportunities for reference.

SEC. E.—*Anatomy and Medicine*, Board Room, Royal Irish Academy. The house of the Royal Irish Academy is at the north extremity of Grafton Street, nearly opposite the College.

SEC. F.—*Statistics*, Divinity School, Trinity College.

It has been very properly suggested in the circular of invitation, that members, who may have papers or other communications to lay before the Association, should state their general nature and probable extent, in a letter addressed to the secretaries of the sections, at the house of the Royal Irish Academy, as early as possible. Unless attention be paid to this recommendation, great inconvenience would arise, and valuable papers might be neglected in the press of business. Investigations of considerable length were recommended to be presented in abstract. The subjects that are to engage the attention of the sections, are posted each day on the doors of their respective places of meeting, and also in the College Examination Hall.

The general meetings of the Association are held in the rooms of the Rotunda, on three evenings (Monday, Wednesday, and Friday), during the week, at 8 P.M., and there will be a concluding meeting on Saturday before dinner. Members and their friends are expected to assemble in these rooms on the other evenings of the week, for the purposes of friendly intercourse.

The Rotunda stands at the northern extremity of Sackville Street. The apartment in which the Association assembled, is a circular room of about eighty feet in diameter; there are few places in which a speaker can be heard so distinctly. The road from the College to the Rotunda is through Westmoreland Street, Carlisle Bridge, and Sackville Street, in nearly a straight line, and passes by some of the finest buildings in Dublin; the Bank, the Custom House, the Post Office, &c.

On the first evening one of the secretaries read a report on the effect produced on the progress of science by the labours of the Association during the past year.

On one of the other evenings Dr. Lardner delivered a lecture on locomotive engines and rail-roads. A practical illustration of such subjects will be afforded by a trip to Kingstown by the new rail-road; it being the intention of the committee that the ordinary shall be provided at Kingstown on one day during the week, so as to give the members an opportunity of seeing an interesting part of the environs of Dublin, without sacrifice of time.

Ladies were admitted by tickets to the general meetings of the Association, but not to the sectional. Ladies' tickets were issued as extensively as possible, especially to ladies from England or Scotland, who came to Dublin during the meeting.

The museums of the Royal College of Surgeons, and of the Dublin Society, the Zoological and Botanical Gardens, and the other public institutions were open during the week to members of the Association. The neighbourhood of Dublin and the natural beauties of an adjoining county, will offer many inducements to strangers to prolong their stay, when their scientific labours are concluded.

Many English geologists of eminence are understood to be engaged in examining doubtful points in the geology of Ireland, and it is hoped that geological parties will be formed after the close of the meeting, to explore some of the most interesting portions of the same country.

—o—

MR. RENSHAW'S REPLY TO MR RUSH.

To the Editor of the London Medical and Surgical Journal.

SIR—In your Journal of the 8th inst. I observe a statement, purporting to come from a Mr. Rush, which is said to have been extensively circulated among the members of the medical profession, and in which my conduct is reflected on in severe terms. As you have not hesitated in giving insertion to an *ex parte* statement, I claim the privilege of an injured man, and demand an opportunity of replying in the pages of the same Journal in which this injurious article appeared.

It can scarcely be necessary to enter into an examination of the whole statement

which is inserted in your last number; the principal points which the author calls "facts," I shall select and comment on, and thus your readers will be enabled to judge whether of the twain has most right to complain of improper conduct. (Here follows a quotation from Mr. Rush's statement in our last.

The truth of this I deny altogether, not solely on my own authority, but I shall support my denial by a letter (which is appended) from Mr. Dobson, surgeon, of Princes' Street, Westminster, and on which no remarks can be needed—it speaks for itself. I did not make any application to Mr. Rush, the *sub-editor* of the journal, for his lecture, nor did he ask permission for its insertion, either of the editor or myself, and consequently the condition to which he alludes cannot have had existence, save in his own imagination. I was not even aware that it would be inserted, until late on the Wednesday evening, when a proof sheet was sent me in which it appeared. I immediately wrote to him requesting he would withdraw the lecture altogether, or else remove his name. I gave him ample opportunity to do this; but finding, at the eleventh hour, that the lecture remained unchanged, his name was certainly struck out, as I deem I had a right to have done, being the managing proprietor, and also having the largest share and the deepest interest in the success of the work, as I had advanced all the pecuniary assistance to carry it on.

I will now, Sir, leave the members of the profession to draw their own conclusions, and to form their judgment as to the conduct of a man who could deliberately and wilfully make a statement evidently intended to do me serious injury, and that so totally at variance with the truth. For myself I pity and forgive him. I am, &c.

HENRY RENSHAW.

136, Strand, August 12th, 1835.

DEAR SIR—It is with great pain that I feel myself called upon to interfere in the dispute between you and Mr. Rush; and the reluctance I feel in doing so is not lessened by the circumstances that connect Mr. Rush and me together. Anxious, however, to act impartially between you both, I cannot hesitate to repeat in writing what I expressed to you in person respecting the publication of Mr. Rush's lecture in your journal. Mr. Rush called upon me in the early part of the week in which his lecture appeared, and stated to me that it was his intention to insert it in that week's number, and was anxious that you should not be aware of the circumstance, alleging as the reason, that if you were, you would prohibit its insertion. He requested that if I should see you I would not notice the matter. Yours truly,

W. DOBSON.

Westminster, Aug. 12th, 1835.
To Mr. Renshaw.

[We publish this communication, but ap-
prize all concerned, that they must look
elsewhere for the medium of publishing fur-

ther correspondence. We cannot allow them to occupy our pages with their personal squabbles.—Ed.]

—o—

The London Medical
AND

Surgical Journal.

Saturday, August 15th, 1835.

DISPENSARIES—THE GRATUITOUS
HUMBUGH.

WE have lately received many communications on the subject of dispensaries, and as it is one of considerable importance both to the profession and to society, we shall briefly state our opinions thereon, and call the attention of our readers to a few prominent facts, in justification of what some may think a harsh conclusion.

On weighing the good against the evil, as impartially as we are able, we have no hesitation in expressing our belief that dispensaries, *as they are at present constituted*, are a decided nuisance. They are beneficial in as much as they afford medical aid to a certain number of necessitous persons who might otherwise be unable to obtain it; they are prejudicial for the following reasons, which we adduce, not in the order of their importance, but simply as they occur to us.

I. Dispensaries are adverse to the interests, and derogatory to the character of the medical profession. They are adverse to the interests of the profession, because young practitioners, in the very delusive persuasion that their connexion with a dispensary will ultimately introduce them to the favourable notice of the public, are wont to offer their services *gratuitously*; as a necessary consequence of which, they are regarded as a kind of professional *hacks*: since they put no price upon their own time and labour, it is not wonderful that others should make light of them, and be disposed to draw pretty freely upon both; accordingly, there is no vrier slave under heaven than your dispensary doctor; he is tormented by unreasonable patients, and badgered by their more unreasonable patrons. Again,

dispensaries are derogatory to the character of their medical officers, for the same reasons that they are prejudicial to their interests; a man who allows himself to be made a *hack* is never respected—the best feeling that is extended towards him is a kind of ludicrous compassion; but the general disposition is to get as much work out of him as possible; hence, the dispensary doctor is continually subjected to every species of impertinence from those charitable busy-bodies, who take a tender interest in the welfare of the poor, where it can be promoted without the smallest inconvenience or expense to themselves; and nothing is more common than for a semi-medical parson, or lady-bountiful, to send a message to the doctor in the middle of the night, requesting his immediate attendance on a patient who, according to the rules of the institution, may have no claim to his services, and may also happen to have little or nothing the matter with him; if, however, the doctor do not turn out forthwith, he is a manifest brute, and has not a drop of the milk of human kindness in him.

Such are a few of the pleasant results of the *gratuitous system*. Formerly the public was in some degree deluded by this system; people thought that, although the doctor had doubtless some private motives, still it was a most charitable and amiable thing in him to undertake the gratuitous care of the sick poor: but all this has gone by; and the doctor is now merely regarded as what he is—an egregious ass—for working for nothing.

“Oh pardon us that we descend so low,
To show the line, and the predicament,
Wherein ye range under this subtle *system*.”

The physicians and surgeons are the only officers connected with dispensaries who are not paid; the apothecary, the secretary, the collector, are all paid—in short the only persons unremunerated are those whose services are most indispensable to the charity, and most laborious to themselves; for this, how-

ever, the medical men alone are to blame—they ask nothing, and they get what they ask, which is all fair, and in strict consonance with the principles which regulate the business of the world.

The infatuation of the profession on this point is really deplorable; not only does the dispensary doctor give an immensity of time and labour for absolutely nothing, either present or in reversion, but he is continually losing the means of private advancement through the distractions of his falsely called charitable duties. We have known dispensary physicians lose the most important opportunities in private practice, by going to visit dispensary patients, who, when visited, could not tell what was the matter with them!

2. Dispensaries fulfil very imperfectly the object of their institution, which is to afford efficient medical assistance to the poor. They are inadequate to this end for two reasons; one is, that the number of patients is usually altogether disproportionate to that of the medical officers; consequently those patients who attend at the dispensary have their cases very superficially investigated, while many who ought to be visited at home are compelled to attend, as long as they are able to crawl, from the simple inability of the medical officers to sustain the personal fatigue of visiting so great a number. We speak from experience; we have ourselves repeatedly been obliged to prescribe for a crowd of patients at a dispensary, in so short a time that it was utterly impossible for us to take proper cognizance of their cases, and we have left the institution with the unpleasant feeling, that what little skill we possessed, had not been fairly exercised in behalf of these individuals; again, we have repeatedly been obliged to desire patients to return to the dispensary, who ought to have had attendance at home which it was not in our power to give them. Another reason why dispensaries are inadequate to the end proposed is, that even supposing

the cases which require attendance at home to be duly provided for, such patients must very frequently be treated in opposition to the noise, filth, stupidity, and brutality, which too often surround the sick bed of the poor, and render the resources of medicine little better than nugatory: the truth is, the greater part of the cases visited by the dispensary physician ought to be in an *hospital*, where they might enjoy the advantages of quiet, cleanliness, good ventilation, proper care, and proper regimen.

3. Dispensaries, considered as *charitable* institutions, too frequently lend their aid to very improper objects. Many persons who would scarcely have the impudence to present *themselves* as objects of charity, become subscribers to dispensaries, for the laudable purpose of getting their poor relations off their hands when they are ill; and many wealthy persons subscribe to dispensaries chiefly on account of their servants, for whom, if generously disposed, they might very well afford to pay—to say nothing of the fact that the servants can generally very well afford to pay for themselves.

4. By the admission of such patients as those above mentioned, dispensaries stand very much in the light of the younger general practitioner whose principal business for some years lies among persons in the lower classes of society, who, nevertheless, may reasonably be expected to pay something according to their means.

Such are the chief circumstances which render dispensaries *injurious*; but it is not to be forgotten that the new poor law act renders them in a great measure *superfluous*, because it empowers the commissioners to procure advice and medicine for the poor in their respective parishes, and to *remunerate medical practitioners for the same*.

Still, however, there is a class to whom dispensaries might be very useful if they were placed on a rational basis,

and in a just relation to *hospitals*. On the one hand, dispensaries cannot, generally speaking, extend any very effectual assistance to cases which require to be visited at home; and on the other hand, hospitals have quite enough to do if they attend properly to their in-door patients; we should say, therefore, let dispensaries confine themselves to such cases as are able to attend at the institution, and let hospitals give up their out-door patients who, under the present system, are generally very much neglected: let dispensaries also engage medical gentlemen of well known skill and experience, and remunerate them properly for their trouble, instead of allowing unpractised lads to acquire, at the expense of the poor, experience to be afterwards exercised for the benefit of the rich. Dispensaries, if thus constituted, might be of considerable utility, instead of being, as they now are, a very serious evil to the medical profession, and a very doubtful benefit to any body.

There are several minor abuses in dispensaries, which it scarcely falls within our province to notice, but which well deserve the attention of the public; such as the practice of tradesmen becoming subscribers, merely for the chance of supplying the institution with their particular commodity, and charging whatever they please for it—an indulgence too frequently conceded to such *disinterested* promoters of public charity: this evil would be best obviated by enacting that no subscriber shall supply the institution with anything.

We cannot conclude without entreating our brethren to reflect, that the evils of the dispensary system which bear upon the profession, are entirely attributable to our own folly in working for nothing—a thing not done even by the clergy, who, of all men, ought to be the most disinterested, and the least worldly; and we earnestly entreat the profession, in this, as in all other instances, to offer a strenuous resistance to the *gratuitous humbug*, which we, for our own part,

shall lose no opportunity of exposing and counteracting.

—o—.

MILITARY AND NAVAL SURGEONS.

WE have long considered that there is no portion of our profession so badly treated as those of our brethren who have been so unfortunate as to belong to our army and navy. It is melancholy to reflect, that well educated, scientific, and most experienced medical practitioners, should be subjected to the harshest exactions, to years of servitude, and to the most inadequate remuneration for their services. If we trace them through every clime, however pestiferous, through every engagement, however glorious to our country, we find them by far the worst treated of our naval and military officers. Some of them have been a score of years as assistant surgeons, with less pay than would satisfy an unwashed mechanic. Merit was not rewarded unless interest was behind the scene. We have had the good fortune and happiness to be associated with a vast number of naval and military medical officers, and we can honestly declare, that better informed or more judicious physicians and surgeons cannot be found than amongst them. But their rewards are most pitiable. Their compensation, not remuneration, for many years' services, say twenty or five and twenty, is disgraceful to the past and present government. It would not be very unreasonable to hope and expect, that a monarch, who like our brethren, passed through the gradations of one of the services which we have mentioned, might improve, and there is vast room for improvement, the condition of our naval surgeons. It would not be unreasonable, in our humble opinion, to expect, that naval and military surgeons might be placed on the same footing, however miserable that footing may be. Neither would it be unreasonable to contend that their emuneration, or call it pay if you

please, should be double what it is; for who can deny that the services of a surgeon are infinitely more valuable than those of any officer, unless one in command, and often more so than his.

We can perceive no valid reason why the services of twenty years should receive no greater reward than a parish clerk's; nor can we understand why a military or naval surgeon or assistant, on his munificent half pay, which is scarcely enough to procure him and his family the necessaries of life, should be deprived of it, or half of it, by what is called compounding, when after many years' exertion in private life, he has succeeded in practice, unless he go again on active service, which was so valuable to him. Only think of the notion of a surgeon with a large family, who spent twenty years in the army or navy, retiring on 150*l.* a year; and after having succeeded in private practice, being called on to go on active service, or forfeit his beggarly half pay. This is Scotch economy with a vengeance: a few hundreds will be saved to the nation, and the Chancellor of the Exchequer for the time being, cannot fail to open his budget with pleasure at the result. The reader will exclaim, it is impossible that this state of things can exist, when we have medical directors-general of the army and navy. We tell them, however, our statement is too true. Whether these public officers are content with their own extravagant pay we know not; but we well know that their brethren have no reason to thank them for any attempt to better their past or present condition, though in many instances their superiors in learning and science.

We should like to know from the directors-general of army and naval medicine, on what grounds there are not medical schools at Haslar, Greenwich, Chelsea, Plymouth, and other national hospitals of the army and navy? It assuredly cannot be for want of talent, as our Guthries, Hennens,

Ballingalls, Coopers, Hutchinsons, Veitchs, Hametts, &c., are among our best medical writers, and some of them our most popular teachers of medicine. We leave the scientific directors-general to explain these questions, and at the same time must be permitted to inform them, that they have neither done their duty to their country nor profession.

Dr. Alexander's Reply to the Medical Gazette.—Just as we had penned the foregoing remarks, we received the communication from Dr. Alexander, a staff surgeon in the British service. It clearly shews that he has been very unfairly treated by our worthy contemporary. We shall only offer one remark on the subject, that of all medical practitioners, the military and naval are the least likely to give false certificates of health to their brother officers, and no one who knows any thing of either service, would credit it for a moment. There are, however, reasons why our contemporary should have fallen foul of Dr. Alexander, but these shall remain editorial secrets at present. As friends to justice, our pages and pens will always be at the service of our military and naval brethren.

—o—

THE MEDICAL PROFESSION AS IT IS,
AND AS IT OUGHT TO BE.

Mr. Dermott's Second Letter to George James Guthrie, Esq.

DEAR SIR—My last letter contained observations upon the evidence given by you before the Parliamentary Committee, regarding the present constitution of the Council of the College of Surgeons, your objections to admitting general practitioners as members of the Council, and enfranchising all the members of the College, by giving them the power of voting in the election of members for the governing body.

To proceed farther—Sir A. Cooper literally states, "*that a person cannot teach anatomy properly unless he be an assistant-surgeon or surgeon to an hospital, and that the teachers of anatomy should be in every case connected with an hospital.*"

This is nothing else than the ghost of the obnoxious regulation of 1826, which pre-

cluded all medical men from being lecturers unless they were immediately connected with, or patronised by, an hospital, and which, in baseness, can only be compared to the "six odious acts of Castlereagh."

You, with most of the present examiners, very properly objected in evidence to this regulation; you stated that "the private schools ought to be protected," although, if all your suggestions were acted upon, they would infallibly have a tendency to crush those schools.

Sir Astley Cooper gives rather a strange reason for his proposition—it is this—"It is necessary," says he, "if I were lecturing upon any particular muscle or part of the human body, to cite some example, to show the utility of the knowledge of the part which I am describing; or else, were I to describe a muscle as arising at a part, or being fixed in another, nobody would attend to it; but, when I observed that inattention, I used to say, this muscle is placed close to an artery; that artery is liable to be wounded; you will see in such a ward, at this moment, a wound of that artery. Now, how would you find it? There is the muscle; you cut to the outer edge of the muscle." Do not, I would ask, private teachers do the self-same thing? I can answer for the majority in the affirmative; if it can be proved that a person does not, then he should in justice not be recognised. It has always been my particular object to mix up as much physiology and surgery with anatomy as possible, and to combine them as intimately as possible. To separate either the one or the other is artificial, and anatomy *in toto* loses its object.

We have yet to learn, my dear Sir, that private teachers* (improperly so called) cannot, both as a body and as individuals, describe surgical anatomy to pupils as well as the present disinterested hospital surgeons, who, you say, so philanthropically renounce money for the sake of virtuous fame.

We know that some of the latter never think of perplexing themselves much about anatomy, which, as a consequence, is in them rather rusty; and they are less acquainted than the majority of the lecturers in private schools with the most modern theories, cases, and experiments, owing to their being so enthralled, as they necessarily are, from morning to night, in their habitual routine of practice, in courting the aristocracy, the private friendship of the governors of institutions, &c.; for, after all, if the truth were told, such is the present bad and dishonest organization of the medical profession, that they principally depend upon the two last named means (together with money and family influence) for preferment.

We know, too, that many hospital surgeons, elected by private influence, have a

* Teachers who lecture *publicly*, but are not connected with hospitals.

bad foundation to start upon withal, and know quite little enough even as to theory.

If I mistake not, I recollect your stating, some few years ago, as an objection against an individual becoming hospital surgeon, that he was a teacher of anatomy, and that an anatomical teacher, to lecture daily and regularly, and do justice to his pupils, must devote the whole of his time to it. And, indeed, I believe it is impossible for an hospital surgeon, in extensive practice, to fulfil the duties of an anatomical teacher. On the other hand, as to the merits of private teachers, have they not, as a general rule, well studied their profession? Have they not raised themselves into repute amongst their professional brethren, and many of them realized success by sheer industry and talent, unbacked by patronage, in defiance of the flue walls, the glittering show, and the formal ceremonies of your public institutions?

You say, "that it has become a race to see how little money can be given, and how little can be taught for it; and, when the young man comes before us, we often find him incompetent upon those branches of knowledge which he ought to be acquainted with."

Does it follow that this is the fault of the teacher? Are all your pupils invariably competent? Are the deficiencies more glaring in the private schools than in the hospitals? As proof to the contrary, look to the printed report of rejections. You add, "the points in which he is found deficient, are not, perhaps, points so positively practical as to render him totally unworthy of being made a member of the College; and we do not like to refuse him, because his teacher has not taught him all that he ought to have done."—"With the support of due authority, it would be no longer a race between gentlemen, to see how little they would ask for the course of instruction; they would be obliged to ask a fair and reasonable sum, and, at the same time, they would be obliged to give a fair and reasonable course of instruction."

You do not mean to assert that, because they are cheap, they therefore must be invariably bad? If so, I do not envy your mode of reasoning. In reply, I would say, that however cheap, they would not be tolerated by a discerning profession were they not also good. But, as this allusion seems intended for the private teachers, and implicates their honour (their lectures being cheaper than the others, as a counteraction against the overbearing patronage and seductive appearance of public institutions), if you will accept a challenge, I will willingly make it, as to the quality of instruction given by the delivery of an anatomico-chirurgical lecture upon any subject, without preparation; the same to be drawn for by lots out of a vase, allowing me the choice of a place wherein to deliver the

same. I will engage, also, to compare pupils with you any day, both on anatomy and surgery.

Have not many of the private teachers been acknowledged, by the Council of the College, again and again, to be good practical teachers of anatomy?

Sound theory is the best directing post to correct practice. It is the head which should direct the hand of the physician in prescribing; that of the surgeon in operating, as well as the tongue of the lecturer or examiner in explaining or interrogating. Is not a learned theorist (whether a public or private teacher) likely to make a more celebrated and safer practitioner, and a better lecturer too, than some thick-heads, who, without a single original idea in their brain-case, or a single just pretension to public favours, were born in an atmosphere of preferment, with plenty of money to back them, and who are just able, in consequence of purchased opportunities and dint of habit, to go through a daily and commonplace course of surgical manipulations? Are not those men who have taken pains to possess themselves of theoretical knowledge, or the experience of others, as well as in some degree of their own, much less liable to make egregious practical blunders in surgery, or medicine, than the persons comparatively unfurnished with it? Moreover, is it not a correct opinion, founded upon sound theory, the offspring of observation, either of himself or others, conjoined with the natural faculty of communicating ideas, which gives capability both to the lecturer and examiner? A man who has had a regular professional education, can always form his judgment to a certain degree from his own experience, conjoined with that of his contemporaries and predecessors; and every man who has thoroughly studied his profession ought, in justice towards himself and society, to have an opportunity of practically applying his knowledge for the good of the public. And if the system regulating the profession is such as to prevent him so doing, that system must be bad.

The real state of the case, at present, stands thus:—An hospital surgeon has an apprentice (perhaps his relation), the latter become so by purchase—say a thousand pounds—or by his relationship. He subsequently pays a sum of money to become a dresser; afterwards, another large sum to be house-surgeon. Next, by paying another sum of money, he becomes a governor to the hospital, perhaps for life. If he is an intriguing man, he takes care in the meantime to cultivate the private friendship of the main body of the governors by every means in his power. A vacancy now occurs for the assistant-surgeon, and if he has been so fortunate as to have kept on good terms with his former master, he is strongly recommended to the governors (*pro formâ*)

as having a claim upon the institution, in consequence of having occasionally officiated voluntarily as house-surgeon during the absence of the latter. He upon these grounds generally succeeds; but sometimes money has to step in again, and put the finishing stroke to it. Many have entered hospitals in this way, and some may be now in a state of expectancy to do so; but it would be invidious to mention names. I have to contend with principles, not with persons. It has been argued, that if the governors and hospital surgeon find his apprentice or relation as well qualified as the rest, he has a right to give him the preference; but, I would ask, may not the hospital surgeon be biassed in favour of his apprentice or son? Are the governors, non-medical, able to judge of the comparative medical merits of the individual? Are any of them capable of judging of the merits of other persons, of whom they have never heard, and whom competition has never called forth? Perhaps you may say, that the public hospitals are invested property. My dear Sir, you may as well talk about the lives of the patients in them being invested property: if you make it a mere property question, away with the term "charity" *in toto*.

The comparative merits of private and public teachers, and of some private and public servants, will soon, perhaps, be tested in a way not hitherto done in England, and which may be consequently novel and surprising even to you.

I remain, my dear Sir,

Your obedient servant,

G. D. DERMOTT.

Medical School, Gerrard-street, Soho.

August 12th, 1835.

—o—

Hospital Reports.

WESTMINSTER HOSPITAL.

Extensive Malignant Disease of the Mammary Glands ("Tissu Lardacé")—Necropsy.

A FEMALE who had passed the meridian of life, and was of a very corpulent habit, and who had formerly been a patient of Mr. White's at the old hospital, with what was supposed to be a fungous disease of one of the breasts, was recently admitted into St. Ann's ward. Since she left the hospital she had been under the care of some advertising empiric. The disease, however, increased rapidly, and extended to the other breast. At the time of her re-admission the two breasts had attained an immense size, much greater than is generally seen in cases of true scirrhus; they approached each other over the median line of the body, and appeared to communicate, by the extension of the disease, with the axillary lymphatic

glands. The integuments covering this immense mass of disease superimposed over the thorax, was of a livid colour, and tuberculated by the presence of nodules, of various size, in its tissue. From the pressure of the tumours on the lymphatics and veins of the arms and neck, the upper parts of the body, and the arms more particularly, gradually became anasaruous, excessive dyspnoea came on, and she was evidently passing quickly into the last stage of the disease. Mr. White, on one occasion, made numerous punctures with the point of a lancet in the back of the hands and the surface of the mammary tumours, from which a large quantity of serum was for several days discharged. This little operation relieved her a good deal, for a time, of the dyspnoea.

The relief thus obtained, however, was only of temporary benefit; the dyspnoea became rapidly augmented, and amounted to orthopnoea; the countenance indicated the severest distress; she sat up in the bed leaning forwards, with her chin on her knees, in order to give the greatest power to all the accessory respiratory muscles, and had two women by her side, almost constantly engaged in fanning the air towards her. She was perfectly sensible and collected, and aware of her approaching death, of which she spoke with calmness. After existing in more or less of this distressing condition during two or three days, death at last put a period to her sufferings.

Necropsy.—The mammary glands were found imbedded in a quantity of dense yellow fat, and upon making a vertical section through them, they were found enlarged to two or three times their natural size, consisting of a semi-transparent whitish tissue, with here and there a yellowish fibrous-looking tissue, traversing the general mass of the tumour. The general appearance of the mass seemed closely to correspond with the description given by the French pathologists, of a variety of malignant disease, which they denominate "tissu lardacé," or "pork-like cancer," from its resemblance to the boiled fat of pork or beef, and of which Dr. Carswell has given some good representations in his "Illustrations of Morbid Anatomy." This distinguished pathologist makes this form of heterologous formations a variety of his species scirrhus, which includes all those forms of malignant disease which do not possess an independent vascularity of their own.

The diseased masses of gland communicated, especially on the right side (the breast of which was most extensively diseased), with the axillary gland, the tissue of which had undergone a corresponding alteration. In the course of the fibres of the pectoral muscles, numerous small white granular bodies were met with, not larger than a millet seed, and which appeared to consist of a tissue analogous to that of which the breasts were the seat. The tubercles which existed

in the skin were hard, firm, and yellowish, resembling true scirrhus.

In the cavity of the pleura of the left side was a quantity of serum, between two and three pints. The pleura of the right side was adherent. The lungs were in a state of severe oedema, being gorged with a quantity of sanguinolent serum. The heart was of a flabby consistence, but in other respects appeared quite natural. Both the liver and spleen were in a highly congested state, and so soft as to be ready to break down under the pressure of the fingers. The other abdominal viscera did not present, so far as they were examined, any traces of disease.

—o—

Foreign Medicine.

Physiological and Pathological effect of Drunkenness on herbivorous and carnivorous Animals. By M. Pommer. Inserted in the Schweizerische Zeitschrift für Natur und Heilkunde.

IN this memoir the author endeavours to shew to what degree drunkenness may be carried in animals, the physiological and pathological effects, and the deduction to be made with reference to that state in man. He relates in detail fourteen experiments made on dogs and rabbits with spirit from grain. In some of the animals the fluids was introduced into the stomach by an elastic gum tube; in others it was directly injected into the veins at various distances from the heart; the doses of it were gradually increased. Dogs resisted the effects of brandy for a longer time than rabbits; the latter died in from forty-eight to fifty days at the latest, after drinking three pounds and some drachms of it. The first symptoms they exhibited were of short duration, and were not appreciable before the forty-second day, when each one received an ounce of spirit night and morning. The dogs, on the contrary, who appeared to be drunk as early as the twentieth day, with half an ounce of the liquor twice a-day, did not die until towards the seventy-second day, after taking seven pounds and a half of alcohol.

Of the animals in whom the spirit was injected into the veins, some died immediately, others survived somewhat longer, according as the injection was into the jugular or saphena, and with more or less fluid. The symptoms are chiefly characterized by uncertain movements, a tottering walk, insensibility, and coma. Shortly after the paroxysm, the animals again become alert, and devour food with avidity. Generally speaking, their appetites remained good to the last. In them drunkenness never commences with gaiety, as in man. At the height of the fit the beatings of the heart slackened; when dogs could vomit, their drunkenness was neither so strongly pronounced nor so long. Rabbits could never vomit. Notwithstanding their

voracious appetite, the animals grew very thin during the time of the experiments. The breath never gave out that peculiar odour observed in drunkards, and no means could detect alcohol in any humour or secretion. Blood drawn from the jugular veins, cerebral sinuses, and other vessels, before and after death, never exhibited any alcoholic odour, and in no way differed from that of other animals.

Dissection disclosed no lesion that could be attributed to alcohol; only in animals immediately killed by the injection of it into the veins, the blood had an alcoholic odour.

From all these experiments, which were made with the utmost precision, the author concludes that the abuse of alcoholic liquors may kill, but that they do not act on the system by absorption, and their primary effect is a vehement impression the nervous system.

Upon the above notice, the editors of the *Gazette Medicale* observe—"There is not much novelty in these experiments of M. Pommer. We must also deny his assertion that the presence of brandy cannot be detected in the blood of animals that have had injections into the stomach; the fact is certified by M. Deyber, of Strasburg, in the following manner. A cow who had had two drachms of a spiritous fluid, administered by a veterinary surgeon, was shortly after killed: nothing was at first observed, except some little phlogosis along the esophagus. The meat of it was distributed to several families, and had a good appearance; but, as some said, also a bad taste. On cooking some of the meat himself, M. Deyber was surprised to find that it gave out a decided smell of ether, which it did not possess in the crude state. When ingested in morsels or in soup, the meat left a strong taste of ether in the throat for some hours."

The Guaco.

This plant is in considerable vogue in many parts of South America, for many complaints, but more especially for the bite of mad dogs and venomous serpents; latterly it has been employed with success in cholera. It belongs to the family of synanthérées, the tribe of corymbifères and section of eupatoriæ; and is met with in the province of Santa-fe and in Brazil; it is a climbing plant. To form a decoction of it, two drachms of the stalk and half a drachm of the leaves are to be boiled for several hours with three pints of water reduced to two; the same wood will serve for two boilings; the decoction is bitter. The tincture of guaco is prepared, as other tinctures are, by infusion; its colour is green. The dose of the decoction is from one to four ounces. If it causes thirst, epigastric pain, and red tongue, it should be freely diluted with water. If insupportable by the stomach, it should be given in glyster.

Fluids for the Preservation of Dead Bodies.

The following is M. Breschet's resumé of the objections that may be raised against the various liquors that have been used for this purpose. It occurs in his report on M. Gannal's proposition for a new fluid, made to the Académie de Médecine.

The requisites for such a substance, says M. Breschet, are a low price, easy carriage, and small volume, for researches made at great distances.

Now, alcohol is too dear, is only fit for small bodies, is not easily conveyed, evaporates rapidly, especially in hot climates, and dissolves the resins that stop the mouth of the vessel. Joined with acids, it softens the bones, destroys the colours and tissues, and rapidly oxidizes the dissecting instruments. The same occurs if it contains arsenic or corrosive sublimate in solution.

Oil of turpentine is only fit for small preparations, alters many of the tissues, and becomes thick and turbid.

Oils only preserve certain fishes; their price is too high, and they are not always to be got.

The syrups that are proposed for preserving the brain and spinal cord are too dear in large quantities; they do not penetrate the tissues, and deposit crystals on the surface, or a viscid matter, which ruins the colours; in warm climates they ferment.

Creosote, which is recommended for the preservation of the brain and nerves, is also too dear; moreover, its action on the general tissue is not yet ascertained.

Sea salt is altogether inadmissible, and its insufficiency undoubted.

The chlorurets of the oxides of calcium, sodium, and potassium, have been recommended, but are unequal to the preservation of slightly thick masses, still less of entire animals.

Wine added to a nitrous solution of mercury, cannot be used in great quantities.

Acids attack the tissues and instruments.

Aqueous or alcoholic solutions of the salts of mercury, and arsenical solutions, are dangerous, from their emanations and long-continued contact; they harden the tissues, alter their colours, and harm the dissecting instruments.

Pyroligneous and acetic acids also attack the organic tissues, and corrode them, and withdraw the earthy matter of the bones, which they render flexible and transparent, while they cover the soft parts with a glutinous layer, which conceals their structures and the fibres.

Alum and nitrate of potash in watery solution have been employed by anatomists; sausage makers use saltpetre to preserve the fleshy tissues and give them a vivid red.

M. Gannal's liquid is composed of two parts of supersulphate of aluminum and potash, and of chloruret of sodium, and one part of nitrate of potash.

In a fluid thus made, two dead bodies were kept for two months, at the end of which time they had not changed appearance, and were readily dissected and served for anatomical demonstration. It remains to shew how long it will actually preserve bodies; what temperature it can resist; the expense of it; whether it can be employed to bring home from distant parts large zoological specimens, &c. &c.—*Gazette Medicale*

—0—

GRADUATIONS IN MEDICINE AT THE UNIVERSITY OF EDINBURGH.

THE following gentlemen, 117 in number, received the degree of Doctor in Medicine at the close of the session of this University, on Saturday, August 1:—

OF SCOTLAND.—Arthur Anderson, on Absorption; John Arnott, on Erysipelas; James Anderson, on Continued Fever; George William Bell, on Delirium Tremens; Walter Scott Carmichael, on Phthisis Pulmonalis; William Carson, on the Pathology of Phlegmatia Dolens; George Chaplin Child, on Injuries of the Head; James Cornwall, on Excision of the Joints as a substitute for Amputation; James Cox, on Morbid Poisons; Samuel Currie, on Aneurism; James Dunsmore, on Scarlet Fever; Thomas Duncan, on Animal Heat; Andrew Ferguson, on Hepatitis; David Deas Foulis, on Phlegmatia Dolens; Alexander Harvey, on the Function of Nutrition; William Home, on Acute Anasarca and Diseased Kidney; Henry Johnson, on Pleurisy; James Townsend Oswald Johnston, on Ophthalmia; Thomas Glen Johnston, on Erysipelas; William Woods Johnston, on Acute Peripneumonia; George King, on the Pulse; Kinloch Winlow Kirk, on Superfoetation; William Kirkland, on Hydrocele; Andrew Cairncross Livingston, on Acute Hydrocephalus; Thomas Macnight, on Expectoration; Duncan Macpherson, What are the Agents concerned in Capillary Circulation? Andrew Millar, on Erysipelas; George Thomson Mitchell, on Tetanus; David Monro, on Aneurism of the Thoracic Aorta; Donald Monro, on Angina Pectoris; John Kinloch Ogilvie, on Morbus Coxarius; Alexander Peddie, on Erysipelas; John Hunter Pollexfen, Orkney, on Peritonitis; James Ramage, on Adhesion of Wounds; John Spens, on Rheumatism; John Thomson, on Peritonitis; William Troup, on Stricture of the Urethra; Thomas Graham Weir, on Hydrocephalus and its Treatment; William Wood, on Diseases of the Female Breast.

[Those from England, Ireland, and abroad next week.]

—0—

Index and Title to Vol. VII. will appear with our next Number.

THE

London Medical and Surgical Journal.

No. 186.

SATURDAY, AUGUST 22, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXVI.

Physiology of the Respiratory System of Nerves—Volition as a Stimulus to Irritability.

AMONG the minor effects of a section of the pneumogastric nerves will be of course a loss, more or less entire, of the voice, and a corresponding want of change in this function from emotion. The pneumogastric nerve, regarded as respiratory, seems to stand in the same relation to the larynx as the pathetic nerve does to the eye-ball, and the facial nerve to the features of the face; but with respect to the pneumogastric nerve in this part of its distribution, the same remark may be made as has been already made with respect to the facial nerve in its distribution on the face, that as the pneumogastric nerve is not only a respiratory nerve, but the only or chief motiferous nerve with which the muscles of the larynx are supplied—as will be explained in future—the want of change in the voice from emotion, after a section of this nerve, proves nothing in favour of the presumption that it is by the respiratory nerves that the stimuli of sympathy and passion or instinct are conveyed. With respect to the division of the spinal accessory nerve, this has been found to cut off all sympathy between the lungs and muscles of the neck and shoulders, as well as all effect on these muscles of emotion, so that they no longer act under either the most violent impediment to inspiration, or the most intense mental perturbation, although the animal can still call them into play by volition. And it is thus that in asthma, which appears to consist in a defective conveyance, by the pneumogastric nerve, of the natural stimulus of sympathy, these muscles are excited, not involuntarily by this natural stimulus conveyed to them by the accessory nerve, but with great efforts by the stimulus of volition conveyed to them by numerous motiferous nerves with which also they are supplied. This fact furnishes a beautiful illustration of the different functions of the respiratory and motiferous nerves, particularly if taken in conjunction with the converse fact that in palsy—which affects the latter only—while the animal is now incapable of calling these muscles into action by volition, they continue to be excited as usual by every impediment to inspiration and by every violent mental emotion. Again, the division of the phrenic nerve of course prevents the diaphragm from taking any part in inspiration as excited by sympathy, as well as puts a stop to all the other numerous sympathies in which this organ is naturally engaged. Thus, with respect to its *active* sympathies, there is no longer any gasping from cold applied to the face, any vomiting from a mechanical irritation of the fauces, nor any hiccough from an affection of the stomach; and with respect to such as are *passive*, an irritation of the diaphragm no longer excites the convulsive descent of the lower jaw, as in yawning. It is indeed in all probability by at once paralyzing the whole respiratory system of nerves from the violent shock communicated to the phrenic, and thus shutting up, as it were, the fountain of all the sympathetic actions of the body, and not, as is commonly supposed, by any impression made on the celiac ganglion, that a violent blow on the pit of the stomach is sometimes so suddenly fatal (a). Lastly, a division of the ex-

(a) "A blow on the pit of the stomach," as remarked by Sir Charles Bell, "doubles up the bruiser, and occasions the gasping and crowing which sufficiently indicate the course of the injury—a little more severe,

and the blow is instantly fatal. A man broken on the wheel suffers dreadful blows, and his bones are broken, but life endures—the coup-de-grace is a blow on the stomach."

ternal respiratory nerve prevents, of course, the co-operation of the muscles on the sides of the chest with those of the neck and shoulders during either impeded respiration or violent mental emotion. Upon the whole, then, it appears that the result of direct experiments by which the several respiratory nerves have been obstructed is decidedly favourable to the doctrine that they are the vehicles of sympathy and passion, or instinct, since the conveyance of these stimuli is for the most part at once intercepted by such obstruction.

The foregoing, then, are the chief arguments which can be adduced in favour of the hypothesis in question; the principal objections to it, on the other hand, besides the commonly believed circumscribed distribution of the respiratory system of nerves, and the alleged impossibility of tracing them all to any common origin—both which objections have been already replied to in passing—are, first, that many of the most remarkable instances of sympathetic action take place when, upon the presumption that the immediate stimulus by which these actions are excited is conducted by the respiratory nerves, we should not have expected them, while, on the contrary, such actions are sometimes quite wanting when, upon the same presumption, they would appear to be unavoidable; and, secondly, that not a few of the nerves above assumed as nerves of involuntary motion are pretty certainly nerves of voluntary motion and even of sensation.

There is, it may be observed, no immediately obvious connection by large or numerous respiratory nerves between the female genital organs and mammae, between the diaphragm and lower jaw, or between the schneiderian membrane or that lining the glottis and abdominal muscles, and yet no parts more intimately sympathize with each other than these; while, on the contrary, the connexion by such nerves is most direct and conspicuous between the glottis and gullet on the one hand, and between the lungs and stomach on the other, and yet these organs offer comparatively very obscure indications of mutual sympathy. It implies, however, a very inadequate conception of the principles of the doctrine in question to look for any direct connexion by respiratory nerves of organs sympathizing with each other, as if the stimulus were to be conveyed *immediately* from the one to the other. It is a fundamental principle of this doctrine that every sympathetic connexion between the various organs is through the medium of the respiratory tract, or common root of all the nerves of this system; and in this view of the matter perhaps all the organs of the body are almost equally connected together by the respiratory system of nerves. But why, then, it may be asked, should not all the organs of the body sympathize equally with any one in a state of primary irritation, instead of some certain organs only being thus involved? In order to understand this, we must keep in mind that every organ of the body has its own specific character of irritability, and undergoes, therefore, on the application of any stimulus, a specific kind of irritation; which irritation now become a secondary stimulus, although conveyed perhaps indiscriminately to all the other organs of the body, will nevertheless act only or chiefly on those to the specific irritability of which it is adapted. The size or number of the respiratory nerves sent from the common root of all to each part may, perhaps, be a measure of the *quantity* of stimulus sent to this part in every case of primary irritation at a distance; but of its *quality* we have no measure, any more than of the *quality* of the irritability of the part to which the nerves tend; and we must never forget that two conditions are essential to every vital action—namely, a specific stimulus to act and a specific susceptibility to be acted on. We must not calculate, then, upon the quantity of stimulus alone, when the quality, not only of this, but of the irritability, may be such as at one time to give rise to very violent effects from the slightest degree of stimulus, and at another to counteract any effect from the most considerable. A small spark falling among combustible matter excites a violent commotion, and a few grains of mercury introduced into the system act forcibly upon the salivary glands; but an intense flame plays without effect on incombustible materials, and a bushel of mercury thrown into the body does not affect organs to the specific irritability of which it is not adapted. Upon these principles it is easy to understand the fact which has been before alluded to, that one kind of primary irritation of the lungs acts on the expiratory, and another on the inspiratory muscles. The nerve conveying these primary irritations to the common tract is in both cases the pneumogastric, and each traverses afterwards the sum of all the nerves connected with this common centre, and that more or less copiously, perhaps according to their size and number; but it displays its effects, not indiscriminately on every organ in proportion to the supply of this stimulus, but on that set of muscles alone, whatever be the supply, the specific irritability of which is alone competent to acknowledge it. It is hence obvious that while no fair objection to the hypothesis in question can be founded on the want of correspondence between the more or less conspicuous connections of parts by means of respiratory nerves, and the greater or less manifestation between these parts of a mutual sympathy, the incorporation of them all, through the medium of a common root, into one universally diffused system, by no means involves as a consequence the indiscriminate participation by every organ in the primary irritation of every other.

Again, it is true that some of the nerves above enumerated as respiratory, or subservient to involuntary motion, are likewise the instruments of voluntary motion, and even

of sensation, to the parts on which they are distributed. There are no organs, for example, over which we have a more decided control, under ordinary circumstances, than the muscles of the face and those of the larynx; yet the former are supplied, as an instrument of voluntary motion, only with the facial nerves, and the latter only with branches from the pneumogastric. But this circumstance, so far from militating against the hypothesis in question, serves rather to confirm the justice of its principles; for each of these nerves, although derived mainly from the respiratory tract, receives at its origin, as has been already remarked, some filaments from the corpora olivaria, which, as immediately connected with the anterior columns of the spinal cord, may be presumed to impart to it the power of conveying the stimulus of volition, while all the rest of the nerves conveys only the stimuli of sympathy and passion, or instinct; and, accordingly, this motiferous portion of the cylinder may sometimes act independently of, or even as an antagonist to the other, as happens, on the one hand, when we counterfeit the effects on the features and voice of a passion which we do not feel, and, on the other, when we conceal such effects of an emotion by which we are actuated—or even, sometimes, combining simulation with dissimulation, not only constrain the expression of one passion, but substitute for it that of another of a diametrically opposite character. Nor is it only by additions made to them at their origins, that the so called respiratory nerves may become qualified in their character, since most of them are united in their course with nerves coming from other systems; so that what was at first a simple respiratory, or a combined respiratory and motiferous nerve, may become at length of a very complicated character. Thus the facial nerve, after emerging from the parotid gland, is united with filaments from the sensiferous portions of the trigeminus, so that, in its subsequent course, it is so far from a simple respiratory nerve, that it possesses a triple character (*a*)—nay, combined, as it may be presumed to be, like all the other cerebro-spinal nerves, with filaments from the ganglionic system, it perhaps plays at last a quadruple part (*b*)! And it is thus perhaps, as already stated, that we must explain the occurrence of the ganglions, before alluded to, on some of the chief branches of the respiratory system of nerves, and, in particular, the pneumogastric; such ganglions—which have served to throw still further ambiguity on the nature and office of these nerves—belonging probably not to them, regarded as simply respiratory, but to some of the other nerves with which they have become associated. The probability of a mutual interchange of filaments wherever nerves of different systems unite together, is too great to allow us, when speaking of any individual nerve, whether of the respiratory, or any other system, to assume that it is to that system that it exclusively belongs, every reputedly ganglionic nerve, for example, comprehending perhaps some respiratory, some motiferous, and some sensiferous filaments; every reputedly respiratory nerve, some ganglionic, some motiferous, and some sensiferous, and so forth, although each nerve is, with propriety, regarded as belonging more peculiarly to that system from which the greater number of its filaments seems to be derived, and to the proper function of which it appears to be in a more particular manner subservient. The objection, then, to the hypothesis which regards the respiratory nerves, *qua* respiratory, as the vehicles of sympathy and passion, or instinct, founded on the complex functions to which some of these nerves, taken collectively, appear to minister, cannot, any more than the one already disposed of, be fairly sustained.

In conclusion, we seem warranted in believing that the office above assigned to the respiratory nerves is the one which they really perform in the animal economy, particularly when we find it impossible otherwise to explain why almost every organ of the body should derive its nerves from sources so very different. Thus all the motions of the eyeball, involuntary and voluntary, might have been performed without the pathetic nerve, all those of the face without the respiratory portion of the facial, all those of the tongue without the glosso-pharyngeal, provided only Nature had supplied each of these organs with a few additional nerves from the motiferous system; and this she would unques-

(*a*) It was accordingly found by Mr. Broughton (Mem. read to the British Scientific Association at Edinburgh, 1834), that a stimulus applied to the facial nerve, anterior to the parotid gland, excited, in addition to twitches of the muscles, &c., symptoms of acute pain, although no such symptoms manifested themselves when it was irritated within the substance of the gland.

(*b*) The probability of this complication in the office of the several nerves, owing to the union in each of the filaments coming from distinct systems, is very explicitly ad-

mitted by Sir Charles Bell himself. Speaking of the different actions performed at different times by the facial nerve, and as he then supposed by the trigeminus also, he remarks, "It remains a question, whether these different actions do not depend upon the influence of distinct filaments of which each nerve is composed. I believe," he adds, "that these nerves consist in a great measure of distinct filaments bound up together, and analogy would lead me to suppose them capable, therefore, of distinct functions."

tionably have done, had not all these parts been destined to be acted upon, either constantly or occasionally, by stimuli distinct from that of volition, and to the conveyance of which the motiferous nerves were inadequate. At the same time it must be conceded, that there are many points in this hypothesis which require further investigation, and that it is probable that such investigation will detect in it many mistakes and oversights: but was it to be expected that so bold and comprehensive an hypothesis should be, from the first, without spot or blemish—without any errors to correct, or gaps to fill up? If it appear, upon a cool and patient review of the whole question, to be substantially correct, let us not immediately reject it because certain points in the detail require corroboration, but assume it to be at least generally true till it is proved to be otherwise, upon the principle already insisted upon, that any opinion in physiology, which has been deliberately taken up upon the best evidence which we can at any given time command, is always preferable to no opinion at all. Such an opinion not only gives the mind the temporary relief which is essential to renewed efforts, but by furnishing it, not so much with a haven in which to cease for ever from labour, as with a starting point, whence it may take another sweep, often conducts it by a comparatively short route to conclusions at which, by floundering on for ages in a sea of conflicting and unarranged facts, it could never by any possibility have arrived. Let us have upon every point an axiom, if we can get it; if not, a theory; if not, at least an hypothesis; but let us always have something upon which we may proceed; taking care, in the mean time, to attach to our doctrines no more credit than they severally deserve, and being always ready to modify or to discard them when we meet with facts which are not reconcileable to them as they stand. It may be somewhat irksome to be thus continually untying our faggots and binding them up anew, perhaps from a single stick having become loose; but it is infinitely less so than to be lost from the first and for ever in a chaos of such sticks without any arrangement at all. If the tendency to systematize on few and ill-established facts is vicious, the propensity to accumulate facts, without referring them to any system at all, is at least equally so: true philosophy consists not in separating, but in combining the two—in regarding speculations as valuable only in as far as they are founded on facts, and facts as no further useful than in as far as they are susceptible of some generalization.

In regard to the *manner* in which the stimuli of sympathy and passion, or instinct are conveyed—whatever be the *channels* through which they pass—we are almost entirely in the dark. In speaking of the ganglionic nervous tissue as the seat of irritability, the latter was described as a property with which this tissue becomes endowed in virtue of its peculiar aggregation; and, in conformity with this view, we must regard the nerves by which the stimuli in question are conveyed as the seat of these stimuli, considered not as entities, but merely as powers with which they become endowed likewise in virtue of their peculiar aggregation. But such powers are not—at least very obviously—constantly in operation, nor, therefore, constantly in existence; for the other condition of vital action—namely, irritability—being always, we may suppose, at hand, wherever no action takes place, we have a right to infer that the power which should excite it is wanting. Hence it results that, in order to develop this power, the nerves in which it is resident must undergo some molecular change, as a consequence of the primary irritation which they are to extend to distant parts, similar to that which they undergo from a direct chemical or mechanical stimulus; and that it is in virtue of this change in the nervous matter throughout all its ramifications that such distant parts become involved, such nervous matter now acting on those parts in the same manner as any direct stimulus acts on those which are the seat of a primary irritation. Of the nature of this molecular change, however, we are utterly ignorant: it is in all probability entirely *sui generis*, and such as cannot be illustrated by a reference to any thing out of the body—we recognise this change only by the powers which it develops, and we recognise those powers only by their effects (a).

(a) At the time when it was customary to regard every kind of nervous energy, as it is called, or stimulus conveyed by the nerves as substantial—as much so as the air which we breathe, or the aliment which we swallow, in conjunction with which the passions, one variety of this nervous energy, were enumerated among the non-naturals—it was usual to represent it as a kind of fluid, and to explain the transmission of such nervous energy to distant parts upon the presumption of the flow of such fluid along the nerves. Dr. Mason Good accordingly states, that it is for the purpose of “elaborating this exquisitely fine and active fluid,” that the

brain is glandular in its construction; and it is because we require a fluid of very different qualities on different occasions, that the nervous system is of so “composite” a “fabrication!”—(Study of Medicine, 1825.) The advocates of this doctrine, however, have unfortunately omitted to adduce any kind of evidence, either of the existence of this fluid, or of its competency to explain any of the phenomena ascribed to it, while, on the other hand, its admission brings with it many more difficulties than it removes. Without this admission we have merely the difficulty of explaining the nature of the molecular change which the nervous matter

The last of the stimuli, by which irritability may be excited, and, which like sympathy and passion, or instinct, is likewise an indirect one, is volition. Like passion or instinct also, volition, regarded as a stimulus to irritability, consists in a translation of a direct or primary irritation of the brain to any other organ; and, in this view of the matter, volition, as well as passion or instinct, may be represented as merely a variety of sympathy, and as constituting a second department of what is called *animal sympathy* in contradistinction to *organic*. As, however, passion or instinct, and reason, including volition, are, with propriety, regarded as two very distinct modes of thought, and as the latter, acting as a stimulus to irritability, appears to be translated by a system of nerves quite distinct from those by which the former is conveyed, it was proper to treat of them under distinct heads, and while the consideration of passion or instinct was incorporated with that of sympathy in general, to speak of volition *per se*. It is hardly necessary to repeat here, that the irritation of the brain, in which volition originates, is not, any more than that which gives rise to passion or instinct, absolutely direct or primary, such irritation being necessarily preceded perhaps—as will be explained in future—by sensation, as such sensation is by irritation of some other part; contemplating volition, however, merely as a stimulus to irritability, we begin with this irritation of the brain, without reference to any conditions on which it may be dependent (*a*). And that such a stimulus to irritability exists is sufficiently manifest. We all know that when we wish to bend the finger the flexor muscles of this part are immediately called into action. This wish cannot have produced a direct irritation of any

itself may be presumed to undergo when it is to develop the power in question; whereas, with it, we have to explain first, by what process this fluid is formed; next, by what powers it is moved forwards; and, lastly, by what means nerves which, though fibrous, are not tubular—and if their fibres are composed of filaments, the ultimate structure of which is globular, it is impossible that they can be so—can transmit it, as well as why, when tied, they do not, like an obstructed blood-vessel, become turgid on either side of the ligature. The last difficulty may indeed be got over by presuming that the fluid in question is of the nature of caloric or galvanism, and, therefore, neither requires that the nerves should be pervious in order to conduct it, nor is capable of rendering them turgid if obstructed in its course—and we know, in fact, that such nerves do act as conductors of galvanism. Against the doctrine, however, that the nervous energy is *identical* with galvanism, it has been already contended at sufficient length, and the doctrine that it is a fluid at all *allied* to it is destitute alike of proof and probability. Opposed to this doctrine of the substantial nature of the nervous energy in the form of a fluid, was that of Hartley (On Man, 1749), and Darwin (Zoomonia, 1794), who imagined that it consisted in vibrations excited in the nerves, and that it was thus communicated from one part to another. A similar doctrine had been before promulgated by Glisson and Malpighi, to explain the nature of the influence communicated by the nerves in giving rise to sensation, such nerves being represented as having been previously rendered sufficiently tense to admit of vibrations by the influx into them of a certain "*succus nervosus*" supposed to be secreted by the brain; so that, although this supposed fluid was no longer regarded as *per se* constituting the nervous energy, it was still considered necessary to its development. The hypothesis

of Hartley and Darwin differed from that of Glisson and Malpighi, principally in as far as they applied it to explain motion rather than sensation, and represented the course of these vibrations as rather from the origins of the nerves towards their extremities, than in the opposite direction: in effecting the proper sympathetic motions, however, such vibrations, if they took place at all, would have to proceed first in the latter direction, and afterwards in the former. But against this doctrine of vibrations *in toto*—not to recur to the imaginary nervous fluid as instrumental to them—it may be objected that none of the nerves have either the hardness, the tension, or the freedom from contact necessary to this condition; and though this doctrine is less exceptionable, perhaps, than that which represents the nervous energy as an entity, it is still very wide of the mark, and worthy of remembrance only as furnishing a good example of the common reproach of physiologists, of endeavouring to identify processes which every view of the matter might induce us to regard as molecular and peculiar to living matter, with others with which, as obvious to the senses, and as displayed by dead matter, we are more familiar. We should never forget that

— *Extremum cuiusque cacumen*

*Corporis est aliquid nostri, quod cernere sensus
Jam nequireunt;*

and when we cannot exalt our capacities to the comprehension of vital actions, it is much better to say so, than to endeavour to bring down these vital actions to the level of our capacities.

(*a*) It would be as improper as it is unnecessary to enter at present into any discussion on the abstract nature of volition, as a department of reason—a subject obviously belonging to the head of Thought. It may be spoken of as a stimulus to irritability, like all the rest, without any regard to its essential character.

part, except of that which is the immediate seat of volition, but the muscles so called into action must, nevertheless, have been subjected to some stimulus, or they would not have acted; and it is this translation of a primary irritation of the brain, distinct from that in which passion or instinct consists, to distant organs, which is understood by volition in its character of a stimulus to irritability.

The examples of the operation of volition in this character (*a*) are much less numerous than those of the action of sympathy and passion, or instinct; the former being confined principally to the external muscular tissue, or that constituting the muscles which enter into the composition of the containing parts, which are for the most part attached, directly or indirectly, to the skeleton, whether connected or not with the mucous membrane, and the action of which is always sensible, while the latter is not only exercised on this, but is extended likewise to the internal muscular tissue, or that constituting the muscles which enter into the composition of the contained parts, which are unconnected with the skeleton and generally in contact with mucous membranes, with the exception of the heart, the parenchymatous tissue, and the irides, and the action of which is not only sensible but molecular. Accordingly, volition is perfectly powerless as a stimulus to the heart, the action of which is so much under the influence of sympathy and passion; as well as to the capillary vessels, so that it never gives rise, as they do, to either blushing or paleness of the cheeks, refulgence or dullness of the eyes, turgescence or flaccidity of the clitoris or penis, the fimbriæ of the fallopian tubes, the nipples of the mammæ or other erectile organs, and has no influence, like them, on the secretion of the halitus from the lungs, the gastric fluid, the intestinal gases, the menstrual fluid, the fat or the sweat, the mucilage, stools, or sebaceous matter, the bile, milk, semen, tears, or saliva. Further, volition is quite inert with respect to the stomach, and the muscles by which vomiting is effected, over the actions of which both sympathy and passion exercise so much control, as well as with respect to the uterus, the action of which is so easily influenced by passion, and, among the organs of sensation, with respect to the iris, the motions of which are effected perhaps exclusively by sympathy (*b*). On the other hand, volition is quite competent to effect or control many of the motions which, under ordinary circumstances, are excited and regulated by sympathy and passion, or instinct alone. It is thus that in some cases of impeded respiration, for example, asthma, originating as it appears to do in an affection of the respiratory nerves, volition appears to stand in the place of sympathy, or even instinct, although its influence, extending only to a few of the respiratory muscles, and these not very effective ones, it performs its part not only with great effort, but very inadequately. It is at all times, however, in our power to control, to a certain degree, the natural respiratory process by volition; and this we constantly do under the various circumstances of speaking, singing, playing on wind instruments, violent efforts of every kind, and innumerable other occasions; it is only, however, within certain limits that we can do this, the natural stimulus to respiration becoming after a time too powerful to yield to any exercise of volition, so that no man can voluntarily asphyxiate himself.

So also the actions of the various muscles by which sighing, yawning, hiccupping, sneezing, groaning, screaming, sobbing, laughing, and coughing, are severally effected, although commonly excited by sympathy and passion, or instinct, may be excited also

(*a*) It is almost superfluous to say that plants, in all probability, perform no actions corresponding to the voluntary motions of animals. If plants are destitute of sensation, they must *à fortiori* be destitute of every modification of thought—but this subject will be resumed in future.

(*b*) Some extraordinary cases have occurred in which the heart and stomach have appeared to be voluntary muscles—the former, in the remarkable case of Colonel Townsend, related by Dr. Cheyne (English Malady, 1734), and in another recorded a short time ago by Ribes, the latter in the numerous cases on record in which persons have been capable of ruminating or vomiting at will. It is probable, however, that it was not volition which in these cases immediately operated on the organs in question, but passion, their possessors having been capable, by the force of imagination, of exciting the requisite emotion at pleasure. Many persons can blush and make their eyes

sparkle, all can produce a turgescence of certain organs, and not a few can shed tears when they choose to do so; but it is not volition which immediately excites these actions, but the emotions which volition has called into existence. The phenomena of animal magnetism furnish many illustrations of this principle; but to these it is unnecessary to refer at present. At the same time, there is nothing improbable in the idea that, in some cases, in the interchange of filaments between the ganglionic and cerebro-spinal nerves, more motiferous filaments than ordinary have reached organs commonly involuntary, and thus subjected them to the stimulus of volition. That they at all times receive some such filaments is probable from what we know is the case with respect to the sensiferous nerves; almost every organ of the body, however insensible to common impressions, being sensible under extraordinary excitement, such as that produced by inflammation or spasm.

by volition, and such affections, therefore, are all more or less easily and perfectly counterfeited; or these actions may be to a certain extent controlled, and the tendency to such affections may, therefore, be in general counteracted when circumstances forbid their indulgence (a). In like manner the action of the numerous muscles by which the alimentary matters are taken, chewed, or transmitted to the pharynx, by which the stools and urine are excreted, and by which copulation is performed, although commonly either sympathetic or instinctive, may be excited, or, to a certain degree, coerced by volition; and it is thus that we are enabled to modify these actions according to circumstances, as well as to choose a proper time and place for their performance. Again, the dilatation of the nostrils, the downward and outward motion of the eye-ball, winking, frowning, and the innumerable changes in the expression of the features, the voice, the attitudes, and the gestures, commonly resulting from various kinds of emotion, are all more or less easily and accurately effected or regulated by volition also; and it is, as before observed, in the delicacy of his perception of those effects of passion, and the skill with which he imitates them, taking care, at the same time, to control the expression of any real emotion by which he may be actuated, that the whole art of the player consists (b).

(a) Some of these processes are with great difficulty, and in general very imperfectly feigned—for example, sneezing; and there are not many good artificial sobbers or laughers. On the other hand, some require a very strong effort to restrain them—for example, hiccoughing; and every school-boy has felt the inconvenience, in the form of a good caning, of the difficulty with which a strong tendency to laughter is kept in wholesome subjection.

(b) It will hence be easily understood why a man of genius is generally a bad dissembler, and a man of talent a good one; in the former, the instinctive impulses preponderating, in the latter, the rational. The same preponderance of the feelings over the judgment distinguishes a partially imbecile or insane person; and hence the privilege generally conceded to such persons of speaking and acting as they list.

REMARKS

ON THE

TRIAL OF ROBERT REID,

FOR THE MURDER OF HIS WIFE,

BEFORE THE HIGH COURT OF JUSTICIARY,
AT EDINBURGH,

On the 29th of June, 1835.

By JOHN FLETCHER, M. D. F.R.C.S.E.

LECTURER ON PHYSIOLOGY, AND ON
MEDICAL JURISPRUDENCE.

(Continued from page 71.)

2nd. The next consideration is the discoloration of the skin of the back of the neck and spine, which was presumed to indicate *ecchymosis*, the result of an injury inflicted during life. And in the first place respecting the *period* at which this discoloration first displayed itself. It certainly was not seen at half past two o'clock on the Saturday, the day of the supposed murder—by which time it has been presumed that the rigidity of death had supervened—by either Mrs. Tod, Mrs. Chisholm, Mrs. Ness or Mrs. Thomson, although Mrs. Ness and Mrs. Thomson examined the body carefully, and must have seen, as Mrs. Ness avers, such discoloration had there been any; nor was it observed at eight o'clock in the evening of the same day by either Mrs. Fife, Mrs. Thomson or any body else who assisted at the examination of the body at this time. Mrs. Fife

and Mrs. Thomson were again present at the subsequent examination at eleven o'clock the same evening, with Bailie Walker and Mr. Williams the surgeon*, but still neither saw any discoloration, nor heard any spoken of; as was also James Fife, who saw "no spot or blemish," and in answer to whom Mr. Williams said that he found no marks of violence upon the body, and that *the woman had died a natural death!* This declaration was made *fourteen hours* after the supposed injury. The first word we hear of discoloration is from Bailie Walker, who says that *he* observed, on this occasion, "some black sort of marks about the neck, the principal being below the right ear." He afterwards says that "the principal marks were on the back of the neck and down the spine;" but on his cross-examination by Mr. James Anderson, the talented counsel for the prisoner, admits that they did not look down the back on Satur-

* Concerning Mr. Williams—the first of the only two *medical* men who saw the body, or any part of the body in this case—who swore in open court that he had a diploma from the College of Surgeons of London, and on whose report the opinion of the principal medical witnesses for the crown almost entirely hinged, I shall have to say more anon. In the mean time I have only to remark that he was utterly unqualified and unauthorized to give any medical evidence whatever.

day night—that the body was not turned over at that time—and that these latter marks were not noticed till the next examination, on Sunday at four o'clock, or *thirty-one hours* after this alleged injury. Now from what cause must we in candour conceive that marks now for the first time manifesting themselves arose—whether were they indicative of *ecchymosis*, a vital process the result of a blow, or of *livor*, a dead process the result of the *post mortem* porosity of the vessels? Dr. Forbes, one of the crown witnesses, remarks that “if the woman had been killed at nine o'clock on Saturday morning, he would have expected the *livor* from the blow” (*i. e. ecchymosis*) “to appear by two; and if it did not show itself by eight in the evening, it would never show itself at all.” And to the same effect says Professor Trail, another witness on the same side, that “*ecchymosis* cannot take place after death; *livor* may;” and again, “if *ecchymosis* were not visible by the time rigidity commenced, it would never be visible by colour afterwards.” But the discoloration in question was not visible by eight in the evening of Saturday, nor for many hours afterwards, and certainly not by the time rigidity has been presumed to have commenced; so that, by the showing of their own colleagues, a discoloration which the crown party in general has presumed to indicate *ecchymosis* did in fact indicate only *livor*. Dr. Forbes, we find, makes no difference between the two, and instances a black eye as an example of *livor*—but the unbecoming manner in which he attempted to silence counsel, obviously much better instructed in this matter than himself, is unworthy of any notice. It was deposed likewise by Drs. Mackintosh and Robertson and Professor Lizars, that a true *ecchymosis* from a blow would in all probability have occurred, according to the first, almost immediately, according to the second, within the first two hours, and, according to the last, within from four to six hours after the reception of such blow. Professor Christison, on the other hand, seems to regard the time of the appearance of *ecchymosis* after an injury as much less certain than that of the manifestation of *livor* after death, the extreme limits of which he represents as five or six hours; and observes that “if no *livor* were seen at eight o'clock on Saturday evening, there must have been some extraordinary error in the facts.” There were, Heaven knows, many “extraordinary errors in the facts,” and such as one would suppose might have invalidated, in the mind of every unprejudiced medical witness, any conclusion whatever from them; and in particular the conclusion that this poor woman was murdered at nine o'clock, rather than that she died a natural death at a little before two. But Professor Christison's opinion, far from weakening, is a corroboration of the inference

to be drawn from that of the other medical witnesses, that the discoloration in this instance did not originate in *ecchymosis*, but in *livor*; for, if it follow from their statements that it could not have been *ecchymosis* from its late appearance, it is an equally fair corollary from his, that the marks which first displayed themselves resulted from that cause which is most uniform in its operation, and was therefore *livor*. Nothing was said on the trial respecting the more or less determinate margin of the discoloration, or of the precise situation of the blood, as merely loosely diffused through the substance of the skin, and that perhaps only a very thin stratum near its surface, or compactly incorporated with the substance both of the skin and of the subjacent cellular tissue—the generally received grounds of distinction between *livor* and *ecchymosis*—the incompetency of those who witnessed the marks in question having rendered quite vain the hope of illustrating the real nature of the discoloration by any observations like these. And with respect to that green or yellow colour which, in the living body, after a time characterizes the latter, this criterion of judgment would of course in the dead body be wanting. There can nevertheless be little rational doubt that the discoloration now under consideration resulted from the dead process of *livor*, and not from the living process of *ecchymosis*. The death of the woman, however occasioned, had been sudden, in which case the blood commonly remains for a long time fluid. The corpse was placed on the back about half-past two o'clock on Saturday, and the posture had undergone only temporary changes till eleven, when “a black sort of mark” is said to have been perceived under the right ear; and this posture remained again unchanged till four o'clock the next day, when similar marks were observed on the back of the neck and down the spine: all which marks are described by Dr. Forbes, who saw them the day after, as presenting “a livid appearance, but nothing more than what is usual in dead bodies which lie twenty-four hours on the back.” And that this black sort of mark should show itself first under the right ear may perhaps be accounted for either from the sore on the head, under which we find, from the evidence of Mrs. Wilson, the deceased had laboured, and which, as observed by Dr. Robertson, had probably rendered this part more vascular than the rest; or from the curvature of the spine towards the right, which Professor Lizars reasonably enough supposes might have produced an inclination of this side of the head downwards, when the body was placed on the back. It may be remarked further that, upon the presumption that the supposed blow was inflicted while the woman was in bed, as paralytic patients usually lie on the sound side, which in this woman was

the right, and seldom or never on the face, the right side of the head and the back of the neck and spine are the very last parts upon which such a blow was likely to fall; while, on the other hand, these parts being after death undermost, and comparatively free from the pressure of the surface on which the corpse lay, and which, contrary to the statement of Dr. Forbes, is known to every well-informed medical man to obviate, instead of promoting the occurrence of *livor*, are precisely those in which we should have expected an accumulation of blood from this cause. So much for the *period* at which this discoloration first manifested itself: again, how far does the *extent* of this discoloration correspond with the idea of its having resulted from a blow inflicted during life, with the blunt extremity of an axe, upon the upper part of the spine? Baillie Walker says that it extended three or four inches down the back; and Mr. Williams, that it reached to the sixth vertebra; but whether it were the sixth cervical, the sixth dorsal, or the sixth (!) lumbar vertebra, as he was ingeniously asked by the counsel for the prisoner, he was quite unprepared to determine. And indeed such depth of information could hardly be expected from one who was totally ignorant of the number of vertebræ in the spinal column, who described, in writing, the first *series* of vertebræ as formed by the atlas, and the second by the "*tentata*," (*dentata*) and who represented the "*outward jugler*" (external jugular) vein, first as carrying the blood from the "*hart*" (heart) to the brain, and afterwards, by way of an amendment, as carrying it from the brain to the "*hart*;" and yet it was upon the presumption of the accuracy of the statements of this man that the very essence of the *corpus delicti* principally, and almost entirely rested*! We find from the

evidence of John Arnot that Williams cut "from the crown of the head all the way down the back;" and from that of Baillie Walker, that he cut "as far as he saw blackness." Hence it results that the discoloration really extended all the way down the back, as well as "to the top of each shoulder;" for such was the direction and extent of a transverse incision which Williams made on this occasion, "at least eight inches," as Dr. Forbes says, "below the seat of the dislocation," which was afterwards discovered. And with respect to the longitudinal incision, the evidence of Dr. Forbes bears that this extended "from the occiput to the second or third lumbar vertebra;" so that, to wave the slight discrepancy between these two *medical* gentlemen of some fifteen or sixteen vertebræ—for Williams' sixth was afterwards explained to mean the sixth from the head—we seem justified in supposing that it reached from one shoulder to the other, and from the head to the loins. Now is a discoloration of this extent what we should have expected from any blow, and in particular from such a blow, and in such a situation as is above supposed? Professor Christison indeed says that "a blow might have produced the livid appearance described." Not, I am afraid, without the admission of another "extraordinary error" or two in the facts, a too frequent repetition of which would have ended probably in an extraordinary error of a very melancholy description.

3rd. But perhaps the least equivocal characteristic of *ecchymosis*, as distinguished

he called it, "the Body" of Surgeons of London—that he *swore what was false*, in first stating that he had such a diploma, and again in stating that he had not been cited (which he was three several times) to produce it—and that Reid was in danger of being sacrificed on the representations of a man who was not only unauthorized to give any evidence at all in this case, but who was obviously no more competent to describe the appearances presented on the dissection of a dead body than a street porter? How any respectable medical witness could build and maintain an opinion upon the statements of a man the grossness of whose ignorance was so apparent is inexplicable; but it is highly gratifying, at the same time, to find that the *exposé* of want of knowledge on this occasion cannot affect the character of the profession in general. There are few practitioners, even in the most obscure towns of Scotland, who are not at present distinguished by an extent and precision of information which not many years ago were the attributes only of a chosen few, even in cities; and there is hardly a first-year student now in Edinburgh, who could have disgraced himself by such a display as was made in this instance.

* It was suggested by the court that an accident which Surgeon Williams had *so very inopportunistically* met with the day before that on which the trial was first expected to come on (16th of March), and which had entailed upon him a loss *so very inconvenient* to a witness in a court of justice—that of speech, might have so far impaired his memory also, that he was inadequate to answer these *very searching* questions, and the witness deposed accordingly that his memory *was* very much impaired: but, with submission, if his memory were too treacherous to enable him to answer questions which the veriest tyro in medicine would have felt humiliated at being called upon to solve, it was certainly too treacherous to be trusted—and that without a shadow of notes taken at the time of the investigation—in an affair which involved the life of a fellow creature. But what will the public think when told that Williams is no surgeon at all—that he never had a diploma from the Royal College, or, as

from *livor*, is the presence in the discoloured part of coagulated blood; and it appears from the evidence of Williams, that "a quantity of coagulated blood" issued from the mark below the right ear, upon his dissecting away the skin from the part—a conclusive proof, in the minds of Professors Christison and Traill, that this mark was the result of an injury inflicted during life. But admitting that it would have been so had the fact been established, what evidence have we that the blood which issued from this part was really coagulated, except the *ipse dixit* of a person, who, from the display which he made with respect to the solid parts, may be fairly presumed to be quite incompetent to make any nice distinctions in this respect? And indeed there is strong presumptive evidence that the blood found in this part was in fact in a liquid state. Bailie Walker expressly says that, at this time, "Williams did not cut under the right ear"—"did not cut nearer to the right ear than the centre of the back," and Dr. Forbes equally explicitly states that "the skin was not cut away at all," so that the blood in this part could find an exit only indirectly by some one or other of the wounds in the neighbouring parts; and yet this blood is described, both by Bailie Walker and by James Fife, as *flowing* from this spot below the right ear, leaving the part which had previously been "as black as their hat" without the least appearance of discoloration. Now can this be true of really coagulated blood, closely incorporated with the substance of the cellular tissue and skin, and that at a distance from the part in which the incision was made, or does it imply that the blood was still in a liquid state, and only loosely diffused through the substance of the latter? It is obvious to common sense that whatever blood came thus from the discoloured parts could not have been coagulated. "It was *thick*," says Bailie Walker, "but it still *flowed*;" and Professor Christison admits, in his evidence, that the term "thick," is often applied by people in general to the blood as it flows from a vein in the ordinary operation of blood-letting from the arm, when it is still perfectly liquid. We have no right then to assume, as Professor Traill thought proper to do, that when Bailie Walker called the blood thick, he intended to express that it was coagulated; and as to what Williams meant by the use of the latter term, the presumption is that he had no distinct meaning at all. Further, if the blood had been really coagulated in this or any other part where the discoloration was seated, it could not, as remarked by Professor Lizars, have all escaped, but must have left traces which would have been visible the next day, when Dr. Forbes distinctly says he found nothing unusual. It is no doubt highly probable that a portion of partially coagulated blood did in fact issue

from some of the subsequent incisions made during the carving to which the body was on this occasion subjected, such blood oozing directly from certain large vessels which were inadvertently divided, and constituting a great part of the "half pound" or "half tumbler" described by the witnesses as coming from the discoloured parts; but this has nothing whatever to do with the presumed *ecchymosis* in question*.

4th. And this brings us to the next subject of inquiry, the alleged rupture, by a blow, of the right external jugular vein, whence Williams chose to imagine that the alleged coagulated blood *constituting the ecchymosis* below the right ear, had proceeded. But, to omit the inaccuracy of calling that an *ecchymosis*, which, had it occurred, would have been, not an *ecchymosis*, in the proper acceptance of the term, but a *thrombus*, and the total inapplicability of this doctrine to explain the extensive discoloration down the back—it is in the highest degree unlikely that there was any such rupture of the right external jugular vein at all. This may be fairly inferred, partly from the extreme rarity, as stated by Dr. Robertson, of this accident from a blow of any kind, and the excessive improbability of its resulting from such a blow as should at the same time fracture the vertebra dentata, partly from the very tardy appearance of the discoloration in question, and partly from there not having been, at any time, the least appearance of a tumour about the part, as distinctly deposed by the witnesses Mrs. Chisholm, Mrs. Ness, Mrs. Fife, Mrs. Thomson and Williams himself. The external jugular vein proceeds, as every body knows, from the parts about the face down the sides of the neck, immediately under the skin, and is altogether out of the way of the upper part of the nape of the neck, in the depths of which is situated the vertebra dentata; and as to a rupture of this vessel having deposited "as much as half a pound of blood," or "as much as would fill a half tumbler," below the right ear, without producing any tumour, it is perfectly incredible. If blood came from the large blood-vessels at all, it was in all probability in consequence of Williams having wounded them by incisions, which are designated by his coadjutor "as any thing but what he should have expected from a surgeon," and such blood was in all likelihood partially coagulated. Nor can it be urged by those who ascribe the peculiar posture in which the body of Mrs. Reid was found to the rigidity of the muscles, as any

* "The effusion of fluid blood from vessels in the neighbourhood of which it is coagulated must have occurred *in the dead body*." (Dr. Christison's Cases and Observations in the Edinb. Med. and Surg. Journ. vol. xxxi.)

objection to this opinion, that after a sudden death from any cause, the blood in the large blood-vessels is rarely found coagulated. In such cases the muscles rarely become rigid, the same causes operating, at least frequently, in obviating both these phenomena*; so that the witnesses for the crown, in denying that coagulated blood could have been discharged as a consequence of such incisions, appear to be on the horns of a dilemma, since, if they deny that the blood in the large blood-vessels would in this case be coagulated, they cannot very consistently maintain their position with respect to the assumed rigidity of the muscles—if they cling to this assumption, they must at least admit the probability that the large blood-vessels, if cut, would exude a portion of at least partially coagulated blood. Williams, indeed, says that his scalpel did not approach the right external jugular vein, and that he only “dissected away the skin from it;” but, to say nothing of the impossibility of doing this without “his dissecting knife coming near it,” it is stated by Dr. Forbes that one incision made by Williams in the neck was “from one jugular vein to the other—as deep as it would go—close to the bone—as far round as the angle of the jaw.” I can no more understand this description of the incision than could Professor Traill, nor perhaps did Dr. Forbes himself; but it is evident that it was a pretty deep and extensive one, since we shall in future find that it was by putting his hand into this gash that Dr. Forbes alleged that he discovered the fracture and luxation of the vertebra dentata. By this incision several large blood-vessels, arteries as well as veins, must of necessity have been divided, and where is the improbability that some partially coagulated blood would issue from these, or that such blood would be confounded by any one who could make such an incision with the still liquid blood which flowed from the discoloured parts, and constituted the *livor* mistaken for *ecchymosis*? Can we believe that such a one was competent to distinguish between the effects of his own reckless operations, and a rupture of a vein produced by violence inflicted during life? In this way it is easy to understand why the spot below the ear was the only one of the discoloured parts which appeared to exude coagulated blood. But it appears that it was not only an atlantic of *ecchymosis*, a rupture of the right external jugular vein, “opposite (!) the vertebra dentata,” (I will not offend my readers by again copying this person's orthography) and, as we shall presently find, a fracture and luxation of this vertebra dentata, which resulted from the imaginary blow in

question, but also some tremendous mischief or other on the *left* side of the neck, since Williams found here likewise, as he deliberately stated in writing, “behind the left ear, on dissecting away the skin, the resemblance of a blow or concussion!” What any man could possibly mean by “the *resemblance* of a *blow*,” and still more by “the *resemblance* of a *concussion*,” even supposing, as we are perhaps in charity bound to do, that he intended to say *contusion*—as he intended perhaps to say thickened, when in speaking of the blood, he called it coagulated—I am at a loss to conceive; and how any well-informed medical witness could sit by to hear such arrant nonsense, and still hold to any opinion founded upon the evidence of the man who could utter it, is still more unaccountable.

(To be concluded in our next.)

—o—

SELECT LECTURES,

FROM

M. BROUSSAIS'

Course of General Pathology and Therapeutics;
translated and revised

By JAMES MANBY GULLY, M.D.

LECTURE X.

Inflammations of the Pneumo-gastric Mucous Membranes, continued.—Otitis—Coryza.

OTITIS may present itself in any of the three divisions of the auditory apparatus: in the external meatus, in the cavity of the tympanum, and in the internal ear. It is of much less importance in the former, which is only a duplication of the skin, than in the two others. The cavity of the tympanum includes a sanguineous, secretory mucous membrane, which acts the part of periosteum, as also muscles, a chain of small bones, nerves, vessels, and a very dense cellular tissue for the connecting of the various parts. Inflammation may be seated in this mucous membrane, and be communicated to the lining membrane of the mastoidean cells in the adult, to the Eustachian tube, and to another small membrane which closes the entrance to the labyrinth. It may likewise be developed in the labyrinth, where there is a cellulo-serous membrane of extreme tenuity, the delicate expansion of the acoustic nerve, the humour in which it floats, and extremely minute nerves and vessels.

The causes of this inflammation (which may be either acute or chronic), are those common to all inflammations, as well as those dependent on the function of the organ, such as inordinate noises, a violent explosion as of a battery of artillery, to those not accustomed to it, or even to those that are, if the undulations of the air are directed straight to the ear, and the shock is so violent as to cause hæmorrhage—inflammation succeeds upon the latter.

* “The coagulation of the blood appears to happen soon after the stiffening of the muscles begins.” (Dr. Christison, Op. Cit.)

Cold is one of the chief causes of otitis: and calorific rays from a furnace may cause it. The predisposition consists in a state of the mucous membranes that is frequently met with in infancy; hence the phlegmasia in question is more common in that age.

When it is developed in the external auditory canal, there is sometimes no pain at all: there is only a slight tickling, and suppuration ensues. This slight catarrh is seen primarily on the impression of cold, or consecutively, or critically, after internal phlegmasiæ. Still the inflammation may be tolerably severe, may be propagated to external parts, tend internally, and even traverse the membrana tympani. Its characters are pains of the part, more or less redness, and tumefaction, an anormal ceruminous secretion and disturbance of the sense of hearing.

Inflammation of the middle ear presents much more serious symptoms, and in it otitis is seen in all its fury. The patient experiences acute pains of the ear, that seem to pass into the interior of the cranium. The exaggerated sensibility of the part makes him feel the beating of the small arteries like so many strokes of a hammer. There is no external discharge, unless the membrane of the drum has been previously perforated; but there is sometimes a discharge by the Eustachian tube, which it is difficult to detect, unless we are led to the examination of the part by the pain, and then we find the mouth of the tube, at the back of the throat, red, and a purulent fluid proceeding from it. The peculiarity of the inflammation is the violence of the pain, and the activity of the sympathies, of which there are none in the case of the external canal. Pains of the head, sleeplessness, fever, painful throbbings and shootings, and an incessant buzzing sound are present; all the sensations are exalted; the eye of the diseased side is frequently injected, or the whole side of the face is sometimes reddened. When the inflammation extends to the mastoid cells, percussion over them is painful, and the corresponding skin is injected and more sensitive.

That inflammation, which takes place in the innermost portion of the auditory organ, in the cochlea and demi-circular canals, is so obscure as most frequently to defy a diagnosis; and as there are but few blood-vessels in the part, it cannot possess a very decided inflammatory character. It is ordinarily confounded with headach, and is accompanied with divers noises, jingling, running and falling water, &c.—in short, there is at once incessant noise and headach.

As to the progress, propagation, and termination of otitis, the external inflammation is apt to end in suppuration in a certain number of days, but occasionally it may remain in a chronic state, in which case the ceruminous matter not returning to its natural condition, it may concrete at the bottom

of the canal, and produce deafness. This circumstance, which is frequently not suspected, has given rise to many marvellous cures, when those who paid more attention to the matter than their predecessors in the case, extracted the hardened wax from the opilated passage. Such an occurrence is most commonly remarked in individuals of a lymphatic or scrofulous constitution, but is also possible in others of sound habit of body. External otitis, if very acute and not arrested, may pass through the membrane of the drum and reach the middle ear, in which case pulsations, pains of the head, and sleeplessness, are experienced. Inflammation of the middle ear may terminate in resolution, though it is rare for it to do so. It is always prudent to strive to suppress it, lest it reach the internal ear and annihilate the sense; this more especially happens when the disease passes into the chronic state. When exceedingly acute, perforation of the membrana tympani from within outwards may occur; the converse, that is, perforation from the exterior inwards obtains in other cases. The inflammation may likewise be propagated to the Eustachian tube and end in suppuration: the pus is then sometimes discharged by that route, but more frequently it is closed. If the membrane of the drum is perforated, a great quantity of pus suddenly flows by the external canal, provided the Eustachian tube is open, a fact which we ascertain by stopping the other openings during the act of expiration. Sometimes the inflammation takes another direction, and penetrates the mastoid cells, particularly in adults, is communicated to the external table of the bone and the superimposed tissues, producing a phlegmon behind the ear, which is a means of resolution. Such a happy issue is, however, far from being frequent; more commonly the inflammation remains predominant or concentrated in these cells, and produces suppuration in them, which finds exit behind the ear, after having destroyed the bony parts; so that after the opening a caries is left.

Propagation to the brain is possible when the inflammation has commenced by the middle ear, but less so when its starting point is the labyrinth. But in whichever it has commenced, we may suspect the propagation when there is extreme pain of head, with violent pulsations, and we may be certain of it when we remark hemiplegia of the opposite side. Instead of hemiplegia we sometimes see a crushing apoplexy in persons that have long suffered from otitis. On inspection we find an hæmorrhage or abscess occupying the middle lobe.

These different progresses suppose that the acute stage has maintained a certain degree of activity; but it may degenerate into the chronic, and then a discharge by the external ear takes place, accompanied sometimes by the issue of the small bones and portions of carious bones, or else complete deafness en-

sues without any external appearances. I have had the opportunity of examining a body in which the drums of both ears were found broken down by suppuration, the small bones gone, and in their place pus, and small masses of tubercular matter: all which had been accompanied, in life, with the most complete deafness. I make no mention of the propagation of the irritation to the base of the skull and the face, by the nervous communications of the facial nerve with the organ of hearing, a propagation whence a convulsive and neuralgic state of the face may result.

In tracing the progress of otitis, I have described the post mortem appearances to you: I will, however, add some further details. If the disease has been altogether acute, we find redness, pus, a detritus of parts and caries; if it has been at a lower degree of intensity, or has lapsed into subinflammation, a concrete and plastic matter is found incrusting the parts and rendering them immovable. Very many cases of deafness originate in such a mechanism, in early infancy, in subjects of a scrofulous constitution. Sometimes a cheesy or tubercular matter is found, resembling that mentioned in the case alluded to above. As regards the alterations of the brain, they are only accidental, and the result of the propagation: this is not the place to mention them.

You may see on what the prognosis is to be founded. A simple otorrhœa of the external canal is a small affair, though at the same time we must not treat it too lightly, for it is liable to relapses that may ultimately induce deafness. Some individuals are more particularly exposed to it than others, and among them, such as are the subjects of dactyria, ophthalmia, tumefied glands, and in fact of all peripatetic inflammations that may finally fix on the ear. When so fixed, they ever produce the same phenomena and are variously intense, inflammatory, or subinflammatory. In their greatest violence they may bring on the disorders of the middle ear already spoken of, and in the chronic state, when the head has at the same time been affected with apoplexy and hemiplegia. The least we have to fear is deafness—a sufficient reason for not allowing otitis to go on.

This disease, otitis, is observed to be more frequent in certain years than in others, and is epidemic. This afforded me the opportunity of very frequently treating it in military hospitals, where I ascertained that it ordinarily arises from cold. Looking on it as an inflammation I applied antiphlogistics; but you should learn that ten or a dozen leeches are of no use when it is deep seated. We should bleed from the arm to relieve the head when it is gorged, and then place forty or fifty leeches around the ear. Where there is merely otitis, we dispense with the bleeding and trust to the leeching. In this manner I have cured hundreds, and it is un-

doubtedly the surest mode of avoiding the consequences of slow resolve, and those of propagation, caries, cerebral inflammation, &c. Should it be too late to obtain full success from this method, still we must employ it in a modified way. Instead of a great number of leeches at once, fewer may be used and repeated daily or less frequently according to the degree of inflammation and redness observed at the bottom of the ear. This plan succeeded in a young person who had been deaf for eighteen months, with tinnitus. She had been purged until the digestive canal began to be irritated. I passed her to an aurist, who recommended her to apply four leeches every other day to the ear: the success was at first doubtful, but ultimately complete; shewing the utility of antiphlogistic treatment even in chronic disorders. According to circumstances, you may add revulsives, blisters, setons, and moxas. If you like you may deluge the digestive canal with mucus by means of purgatives; but remember that they may generate disease in the organs on which they act, and should therefore be used discreetly. The surest way is always to address yourself directly to the inflammation itself, whenever that is practicable, and above all to nip it in its commencement whenever it is situated in deep-seated organs—a precept than which I can give you no better, and one that *will* finally and necessarily prevail, strong as opposing prejudices may be. Every one, however, does not apply to others what he uses in his own case. Many physicians who go murdering the physiological doctrine in the persons of their patients, apply it very accurately to themselves when they are taken ill. Several such cases I know of, and of these some are of the "crack" race (*des célébrités*). When seized with sickness, they send for another célébrité as a matter of form, but take good care to have some little physiological physician in the way, and he it is whose advice they actually follow. We pass to the inflammation of the olfactory apparatus.

Coryza.—The cause of this inflammation is more particularly found in the action of cold; the exertion of the organ of smell rarely induces it, but such an event may take place; indeed it happened to myself in my youth, at the time I was studying botany: having a very delicate sense of odours, I smelled and tasted the plants, for the better recognition of their properties, and the habit got me several coryzas. Acrid vapours and irritating gases in the atmosphere may also produce the disease. But its most ordinary cause, as has been said, is cold, especially of the head and feet, particularly moist cold, acting by the medium of the air and water; and if it so acts during the night the effects are much more severe. Dry cold does not so readily cause the inflammation in question. The predisposition consists in a tendency to affections of the mucous membranes and a congested state of the head. Youth, a lym-

phatic constitution, and narrow nostrils, favour its development.

Coryza is known by an itching, sneezing, sense of fullness, some bleeding of the nose at intervals, during which the sense of plenitude is done away with, to be however reproduced; a watery and then a mucous secretion is remarked. The mucosities become acrid and burning, inflame and corrode the *alæ nasi*, and even the lips; at a certain point there is heaviness of head and fullness of the entire face.

Propagation may take place into the frontal and maxillary sinuses, to the ethmoidal cells, to the head and the eyes; but it is most commonly directed towards the larynx and bronchi, the coryza being only the effect of a developed irritation in a vast number of mucous follicles at once, constituting a catarrhal state which tends to travel along the course of continuous membranes. Those cases in which it is only the prelude of a cold, or where it ceases in two or three days, must be distinguished from those in which it is inflammatory and obstinate, and where it threatens to cause a purulent collection in the maxillary and frontal sinuses, as well as from those cases in which it is excessively aggravated, accompanied with violent headaches, stupor, and complete loss of smell; in such instances it may reach the brain. Examples of such a propagation are more rare in coryza than in otitis. I have seen several of them, however. Why does it not occur more frequently? Is not any thing possible in inflammation? and can it not take all kinds of directions? Here then is a lesson for us to be astonished at nothing.

The sympathetic or disseminative phenomena are ordinarily slight, there being only lassitude, tremors of the limbs, and little or no fever; to give the latter a decided form there must be inflammation of some organ.

Common coryza, induced by cold, and which is not maintained in the upper part of the mucous membrane by any local predisposition or a long standing point of irritation, ends in three or four days and is replaced by a cold. But if it is fixed and obstinate, with sense of fullness, prostration, &c., the mucosities become thick and fetid; ulcerations of the mucous membrane covering the turbinated bones sometimes appear, spread, and penetrate the bones, producing polypi, caries, and ozena; or else pus accumulates in the maxillary sinus, the cheeks swell, become red, an abscess forms, and requires a surgical operation to give exit to the matter: this should be done in good time, to prevent the necrosis of the bone.

Coryza is sometimes exceedingly obstinate when it is accompanied with incessant bleeding of the nose and continued pain of the head after cerebral congestion. I know a person who had one every time he became cold, but who speedily got rid of it. He was once attacked when in a state of plethora and headach, in consequence of having

neglected to be bled; this time the coryza did not yield spontaneously, because it was kept up by a severe engorgement, while at the same time that there existed an irritation and congestion of the brain, there was a similar irritation and congestion of the mucous membrane; vigorous antiphlogistic treatment became necessary in this case. Simultaneous congestion therefore of the face, gums, eyes, &c. is a cause of prolonged and obstinate coryza; but in this state of things the coryza would tend less to supuration, and would rather be a precursor of apoplexy if the afflux of blood upwards is considerable.

Dissections only give us information on the complaint when death comes accidentally, for no one dies of coryza, unless there be ozena and propagation to the brain. The mucous membrane is then seen to be red, ulcerated, thickened, degenerated: the bones of the nose and sometimes those of the face carious: the same at the base of the brain; the inflammation propagated to the anterior lobe of the brain, with all the consequences it entails upon that part.

As regards the prognosis, it may be said that purely mucous and catarrhal coryza is a slight disorder; it is well, however, to obviate it as much as possible. The inflammation that remains fixed in the nasal mucous membrane merits the utmost attention, especially if ulcerations and a tendency to ozena appears. This case is more serious than a simple congestive disposition of the brain; for notwithstanding the latter, the disease may still be readily overcome, unless indeed there be some previous alteration of the brain. Deep-seated coryza that degenerates into ozena and induces caries, is therefore a serious matter.

The treatment should be commensurate with the degree of irritation, of propagation, individual predisposition, and cause. Have we to treat a coryza brought on by cold, it is soon done; keep warm, re-establish the cutaneous transpiration, prevent propagation to the lungs, that is all. Does the coryza remain fixed in the nasal fossæ, and is there redness and tenderness of the face, it must be treated as a local inflammatory affection, by leeches to the apertures of the nostrils, by demulcent baths, mustard baths, low diet, and slightly sudorific demulcent drinks. If there is a cerebral congestion along with it, these means should be preceded by bleeding in the arm or foot. Should this pre-existing congestion have been shared, previous to the coryza, by the pneumogastric mucous surface, we are right to persevere in local bleedings, which should be repeated with a pertinacity equal to that of the disease; in this manner, by this obstinacy in my plan, I have vanquished many severe coryzas.

We then prescribe a diet in accordance with the state of the patient. When the excreted matter happens to be fetid, and there is a tendency to ozena, local bleedings may still

be employed; but the nasal fossæ should be carefully excluded from the air, and the openings to them accurately stopped with cotton wool. This simple precaution, founded on attentive observation of the morbid phenomena, makes cases curable that would not be so without it; by this means incipient, and even advanced ozena, may be cured. But if the disease is deep-seated and inveterate, with threatening or commencing caries, and especially if there is at the same time suppression of some cutaneous excretion, we cannot do better than to have recourse to some exutory applied on chosen points, and, in the last named case, over that occupied by the irritation. If abscesses form, they are to be opened, and we should strive to undermine the inflammation that surrounds them, without which we are not likely to succeed.

In the course of our descriptions of the inflammations of the apertures of the mucous membranes, wherein or whereon the external senses exist, we have had occasion to remark several traits which they have in common. In general they are accompanied with mucous secretions: when there is great activity they influence the viscera, and are influenced by them; their proximity to the brain renders propagation thitherward easy; these are facts which you ought not to pass lightly over.

We now proceed to speak of the inflammations of the mouth. They sometimes extend to such a depth that they are no longer visible in their whole extent; but we must now begin to study inflammation in organs which the eye can no longer reach. Hitherto we have closely staid by our analytical method, which consists in the studying morbid phenomena in every point where they impinge on the senses, where their immediate characters and influences are readily detected, and where deduction is less difficult. Proceeding thus, we have constantly remarked, that the disorder of the internal functions bears a ratio with the local inflammation: we have always seen, from the natural progress of the latter, or the impulses it receives, the visceral irritation augment or diminish according as the local inflammation augments or diminishes—in short we have always beheld it march in concert with it, in the character of an effect, except when, as I said before, a previous inflammatory condition of the viscera has paved the way to the external phlegmasia.

—o—

HOSPITALS, DISPENSARIES, AND WORK- HOUSES.

To the Editor of the *London Medical and Surgical Journal*.

SIR—I have lived in the metropolis for upwards of forty years, and the whole of my observation, during that extended period, confirms the representations of Amicus Industriæ.

The receiving-rooms of hospitals and dispensaries, and particularly the former, are marked by great indecorum of manner and language on the side of the subordinates: indeed the whole system, in all its features, is saturated with grossness and imperfections, because sordid hypocrisy and deception reign thereat; such institutions being much more useful to the aristocracy and the wealthy than the poor; and this most disgraceful perversion of charity will only cease when disease and misery receive protection on these sacred and irresistible appeals, and not because the afflicted are the dependants of this lord or that lady. Until this shall take place, our charities are our disgrace, not our ornament; and we shall continue to be regarded in this department of human misery, by all humane and enlightened foreigners, as strongly tainted with barbarism—as a nation of hypocritical, Christian Jews—acknowledging Christianity, but practising none of its sacred principles; a nation, as observed, professing Christianity, but enacting Shylock with singular fidelity. In further proof of want of Christian feeling, let it be remarked, that the inexperienced medical man is oftener appointed to those hospitals and dispensaries than the experienced, so that these arrangements are more allied to destruction than benevolence and charity.

Amicus Industriæ observes, that the medicines at these institutions are often bad, and carelessly prepared, and to the truth of which I can bear testimony; and will add, that a hungry dog, of cleanly habits by nature and education, would not touch a joint, even under this strong impulse, if found in contact with the dirty powders, pills, and bottles emanating from the foul sources adverted to.

Kings, their ministers, and secretaries, admirals and generals, bishops, the officers of the Excise and Customs, of the Vaccine Board, of the British Museum, all delight in being refreshed by the approaches of the golden calf—I beg pardon, I mean the golden shower of prolific power, and far surpassing the southern breeze. But excessive virtue always verges on folly, and the ridiculous is to be alone found in the medical officers of dispensaries, who receive no remuneration for their services thereat, while themselves and their families are not unfrequently under great difficulties.

I am, Sir,

Your most obedient,

Humble servant,

A FRIEND TO REMUNERATION FOR
MEDICAL SERVICES.

London, August 7th, 1835.

[There is nothing more unreasonable and unjust than expecting the services of medical practitioners, at hospitals and dispensaries, gratuitously. This custom began in former ages, when the profession very

humanely afforded their services to the poor without fee or reward. In those days there were no poor laws, nor poor law commissioners, to compel parishes to support their poor. But now we have both in luxuriance, and the latter are sagely proposing, to needy and inexperienced young professional men, to doctor the poor at a farthing a head. Such is the race of political intellect.

There cannot be a second opinion, but the poor rates of this country are more than sufficient to secure the proposed advantages to those unable to procure subsistence, and also to remedy their diseases. But how are they applied? In the grossest speculation in most cases. Who are the medical officers? Men just let loose from school, who are in general incompetent to prescribe for a dog or cat, but who work cheap. Aye, there's the rub. Would the poor law commissioners employ such practitioners in their own families? The answer is no; but they are good enough for the poor. Now the health of the poor is as valuable as that of the rich, and their diseases as important. It surely is no crime or sin to be poor. There would not be any difficulty in proving, that the medical attendance on parish poor is the worst on the face of the earth. The medical attendants are not in general allowed the price of shoe-leather for their services; and, as to that of a horse or donkey, it is out of the question. Yet the poor law commissioners expect respectable medical practitioners to render their services on such terms. Pshaw—non-sense. They must have no common sense. It is scarcely necessary to observe, that medical practitioners, physicians, and surgeons, contribute as largely to the support of the poor as other citizens. Then, in the name of reason, why should they alone do more for the poor than all other individuals? Why should they give their services at hospitals or dispensaries gratuitously, when the metropolitan hospitals are opulent, and the parishes are bound to supply medical aid to the poor? Why should general practitioners be seriously injured by hospitals and dispensaries? If they act wisely, they can readily abate the evil. Let meetings of the profession be held, for the purpose of placing hospitals and dispensaries on a proper basis. Let such meetings resolve, That none but real objects of charity be admissible to such institutions; and that the medical officers henceforth refuse to act gratuitously, and to admit all improper persons recommended. By this means society, and the faculty, would be really benefitted. *Let meetings of the profession be generally convened as soon as possible, and solid good will result.*—ED.

MEDICAL JURISPRUDENCE—DR. ALEXANDER'S REPLY TO THE MEDICAL GAZETTE. —

To the Editor of the London Medical and Surgical Journal.

SIR—The following are the remarks in the London Medical Gazette, No. 42, on my evidence:—

“Another medical witness was now called, whose evidence was any thing but serviceable to the side on which he appeared, or indeed creditable to the deponent himself. Dr. Alexander, Surgeon, saw Col. Gusvalde in May, 1827, at Macclesfield; he was in bed; never saw him under an attack of epilepsy or under a fit of any kind; yet a certificate was given by witness to this effect, that having examined the patient, he found that he had been labouring under epileptic fits, followed by delirium, in consequence of a fall, and that he would not be able to resume his duties in a less period than six months. This certificate was got up in order to procure leave of absence for the Colonel from the Horse-guards. Counsel for the opposite side naturally laid much stress on the evidence of Dr. Alexander, and admitted, that were it not for the certificate just quoted, the plaintiff's case would have gone triumphantly before the jury.

“Nor can we avoid saying a parting word regarding the predicament in which one of the witnesses placed himself (we mean Dr. Alexander), who was obliged to confess his having given a certificate without the requisite caution, and that he stated circumstances in it of which he had no personal cognizance, the document being at the same time ambiguously worded. The dangerous indiscretion of such a proceeding is but too obvious to require further remark: with the morality of it we will have nothing to do.”

Extract from my Annual Report for 1827.

One of the contusions was very severe, and occurred in an officer at Macclesfield, who was thrown from a footpath into the road (the footpath being raised several feet above the road), and pitched on the back part of his head. This happened on the 7th May, 1827, and on the day following (8th), whilst Captain Wigley* was walking in the street, he suddenly fell down, foamed at the mouth, and remained convulsed for some hours. He was now freely bled and purged, and remained in bed until the 11th, when he got up, conceiving himself recovered. On the 12th he was driven out in his gig, but soon returned, looking and feeling very unwell; yet, not, withstanding, he on the 13th visited one of the stables, where, whilst in the act of stooping, he fell down, and remained many hours convulsed. He was now put to bed again and bled, &c.; but on the 14th and 15th he was seized with noisy delirium. On the morning of the 15th leeches were applied to both temples, cold lotion to the shaved head,

[The following was excluded last week, for want of space.]

* Afterwards Col. Gusvalde.

and afterwards a blister. Towards the morning of the 16th, he became more composed, fell asleep, and awoke calm and sensible. I saw him at three, P.M., of this day (16th), when he still continued calm and sensible, but rather hurried in his manner. Pulse quick and soft; eyes impatient of light; and he still felt pain in the back part of his head, a little behind the left mastoid process, although much less than formerly, and pressure caused a slight increase of pain. As the disease seemed to be subsiding or subdued, I had nothing to advise but a repetition of the same means that had been employed, if a recurrence of symptoms required, and that in the meantime his bowels should be acted on, iced water applied to the head, and quietude, low diet, and a dark room, should be strictly enjoined.

The following certificate was granted on the fifth day after my visit to Macclesfield:—

"I hereby certify having carefully examined Captain Wigley, and find that he has been labouring under epileptic fits, followed by delirium, in consequence of a fall on the head; and am of opinion that he will not be able to resume his duty with safety in a less period than three months.

"M. ALEXANDER,

"Staff-surgeon, late of the 6th Dragoons.
"Nottingham, 21st May, 1827."

Sir—I regret that circumstances should have occurred to prevent me from replying earlier to the remarks contained in No. 42 of the London Medical Gazette, touching my evidence in the late trial of Chattock v. Shawe. The false statements and omissions in the article on Policies of Life Assurance, renders it unworthy of a place in any of the farthing trash that daily issues from the press.

Allow me to state that I shall take up no more of your space than is necessary towards the refutation of the base and (I hope) unmerited remarks of your charitable contributor.

The learned judge, in addressing the jury, stated that some part of the evidence had been withheld—an important fact, of which, no doubt, your correspondent was fully aware. Lord Abinger also stated that it was of no moment whether the fits were epileptic or not; for if the jury were satisfied in their own minds that Captain Wigley or Colonel Gusswalde had been subject to *fits* (no matter of what kind), before the policy was concluded, they would find for the defendant.

Holding these two (suppressed) truths in view, I now proceed to state, that the original of my report was in court both days, under charge of Mr. Tanner, from the Army Medical Board Office, who was specially subpoenaed for the occasion, and that had it been called for, would have proved that, "having carefully examined Captain W., I found that he had been labouring under epileptic fits, followed by delirium."

That any one should read this and say that

it is loosely or ambiguously worded, is really wonderful; but that when read in connection with my report (which it ought to have been, and it was no fault of mine that it was not), it should be deemed contradictory or obscure, is somewhat marvellous. Every word of the certificate was formed from the same memoranda from which the report was drawn out many months after, and when every circumstance connected with Captain W's. accident was fresh in my memory. I arrived at Macclesfield on the 16th May, in the morning of which day Captain W. first awoke calm and rational, and free from delirium; and whoever will read the report, must observe that I not only state every point that was related to me by those worthy of belief (and whom I would sooner believe than your correspondent), but I also state the condition in which I found Captain W. on my arrival at Macclesfield. I am quite ready to admit that the certificate did not contain all that the defendant's counsel could have wished—*et hinc illæ lachrymæ*; and that my explanation of that document was still less favourable to them; but none except those blinded by prejudice, or some worse motive, can peruse my report (on which was founded the certificate) and deny that my examination was a careful one. I fearlessly appeal to the evidence of Captain Mackay, Mr. Cockson, and the daily register of the late Mr. Newbald, in confirmation of every word of my report, and certificate also. The daily register of Mr. Newbald contains an entry, stating that he had attended Captain W. for "convulsive epilepsy;" and I may here add that I was informed by Captain Mackay (if I recollect right), that Captain W. had foamed at the mouth. If a person falls down suddenly, is convulsed, insensible, and foams at the mouth, there can be no doubt of such an attack being epileptic; and of the truth of all this I was convinced when at Macclesfield; but as already stated, it was of no consequence whether the fits were epileptic or not—at least as far as entitled the defendant to a verdict. I now come to that part of the certificate which states, "in consequence of a fall on the head." The effect followed the cause so soon as, in my opinion, to establish the close and intimate connexion of the one with the other; and that the fits were independent of any predisposition is more than probable from the fact, that no one ever saw or heard that Captain Wigley had fits during or after a long and fatiguing field day, a long and fatiguing fox-chase, or a long and fatiguing day's shooting; causes which are fully capable of exciting fits in the predisposed. But as if to strengthen and confirm every word of this, in steps the surgeon of the regiment to which Captain W. belonged, and with which he had served nearly two years in the Mauritius. Mr. Kell's interesting evidence proved that Captain W. was in the habit, whilst in that island, of taking frequent vio-

lent and long continued exercise in the sun—all the while eating and drinking the same as other officers (and all know that officers drink much more in a tropical than in a temperate climate), and yet, wonderful to relate, and in spite of being thus exposed day after day to the most powerful exciting cause of fits known, so wicked and perverse was this poor epileptic, that he would not even out of compassion to counsel for defendant, take one single little fit. This was an *esprit de corps* that would have annoyed the patience of the most learned in the land.

However, in order to prove that frequent and long exposure to a tropical sun, aided by good eating and drinking, is the most powerful exciting cause of fits known, I beg to refer your readers to the 2nd vol. of Cooke on Nervous Disorders, after page 211, and also to lay before them the following indisputable fact, viz. in the king's troops in India, i. e. in Bengal, Madras, and Bombay, there occurred, during a period of five years, of phrenitis, 138—epilepsy, 448—and apoplexy, 196 cases—making a total of 772 cerebral affections, all, or nearly all, arising from insolation and intemperance, or both combined.

Had I refused to certify, Captain W. must have come to Nottingham for re-examination, which would have taken that officer more than forty miles out of his way—a risk I did not choose to run, in his then weak and debilitated state. The extract from the Annual Report for 1827, proves that the certificate was granted on the testimony of others worthy of being believed. Does your correspondent mean to assert that an army surgeon, in the discharge of his duty, is to put no faith in the testimony of his brethren in civil life; and that when both meet together (as they often do) almost in the chamber of the sick patient, is the former to disbelieve the statement of the latter? Does your correspondent mean to reduce the veracity of the profession on such occasions to so low an ebb as this?

But to return to the certificate on which so many foolish hopes were hung. I am aware that if the words “from report” had been introduced after “I find,” it (the certificate) would have suited those of the most fastidious taste; but even with the addition, the learned in the law might perhaps have been dissatisfied, such is their ingenuity in picking holes in every thing that can be spoken or written. However, I maintain that it required no mending, for when read in connection with the report, the most obtuse in intellect may understand it.

I shall now show that the statement given of my evidence is false and full of omissions. In the first place, why were the two truths stated by the learned judge to the jury concealed; and why did your very moral and upright correspondent not inquire into the nature of the evidence withheld, before he indulged in aspersing the character of

another? Why is the daily register of the deceased surgeon not mentioned? and lastly, why is my own evidence suppressed? It is totally false that I appeared to give evidence on any one side in particular; I was subpoenaed by both parties (not even accepting the usual fee from the defendant), and I stood in court an impartial and unbiassed witness, ready and willing to answer to the best of my belief and recollection (after eight or nine years) such questions as counsel were pleased to put to me, and for no other purpose whatever. If your correspondent, when he states the certificate was “got up,” means to imply that any unfair or improper influence was used other than honest ones, or such as were agreeable to the rules of the service, he again states that which is false. The certificate was granted and worded for the information of a soldier, and not for the purpose of being twisted and misconstrued by a legal disputant, however high his knowledge of the law may be; nor was it worded to please the palate of the Eagle or any other insurance office in the kingdom. Is it not usual for those of reputation in the profession to prescribe for the disease of a patient who at the time is many hundred miles off, and who, perhaps, has never been seen? and if prescribe, why refuse to certify? Will your candid and veracious contributor explain (if he can) the legal and moral difference of these two acts, and which he deems the most criminal? if, indeed, there can be any thing culpable in one or the other, when the ground or authority on which both are done is not to be questioned.

Your readers are now asked, what is their opinion of him who conceals truth, and states that which is false, while he at the same moment talks of morality? Of your modest correspondent's valedictory advice!! I shall make short work, by throwing it to the winds, to be carried to and fro with bodies like itself light as air, and as insignificant and empty as the soap bubbles of a school-boy. Let me, however, warn your contributor, when he next attacks the character of another, to pay some little regard to truth, as a good cause requires nothing more.

I remain, Sir,

Your most obedient servant.

London, M. ALEXANDER, M. D.,
July 29, 1835. Staff Surgeon.

The following is the answer to my communication (of which that I now forward is nearly a copy) as contained in the notices at the end of No. 44 of the London Medical Gazette.

“*Dr. Alexander of Macclesfield.*—In reference to the letter respecting the insurance case, we have only to repeat what we said last week, that our account of the trial (false) was taken from the Times of the 13th ult., and to add, that at the time we wrote, we knew nothing more, either of the facts or

parties concerned, than appeared in the columns of that journal. It is too absurd to charge us with not noticing certain documents that were not even produced in court."

Now, nothing can equal the base and mendacious conduct of a journal which, while it admits into its pages false statements affecting the character of another, refuses to give a place to his defence. Such conduct requires no further remark—it speaks for itself.

The London Medical Gazette states that they copied from the Times of the 13th ult. Nothing can be more impudently false, for that journal (dates excepted) gives one of the truest accounts I have yet met with of my evidence. It is through the Times and another document, viz. one of the most correct (short hand) statements that exists of the trial (executed at considerable expense) that I am enabled to confound the writer on policies of life assurance, and contradict him on his own ground. In the Times, and the document just mentioned, not one word is stated of my "being obliged to confess having given a certificate without the requisite caution;" hence the inference is that that assertion is as false as the others mentioned.

11, Green Row, Chelsea. M. ALEXANDER, M. D.
Staff Surgeon.

—o—

MANUAL OF OPERATIVE MEDICINE, BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

1. *Capillary hæmorrhage* may be stopped by pressure, either by the fingers of an assistant, in the case of a small wound, or upon the mass, when this is large. Commonly we form, with little bundles of charpie or discs of agaric, a sort of pyramid, applied by its base upon the bleeding surface, and retained there by a bandage or appropriate apparatus.

Other kinds of plugging may be resorted to, and styptics and caustics may be united with compression. We have seen a case of capillary hæmorrhage from four wounds of the leg and thigh, which we were unable to stop, except by compressing the femoral artery on the pubis.

2. *Venous Hæmorrhages*.—Veins seldom lose much blood after operations, except in the two cases before mentioned. It is generally sufficient to compress their orifices for a few minutes with the finger. If the bleeding continue, we may apply the same methods as are employed for capillary or arterial hæmorrhages.

3. *Arterial Hæmorrhages*.—There are no less than fourteen methods for arresting hæmorrhage from the open mouth of an

artery, which have now, or formerly, had three approvers.

1. *The Expectant Method*.—Here every thing is entrusted to nature. It is important, however, to examine what occurs. J. L. Petit taught, that hæmorrhage is arrested by the formation of a clot of blood, of which the internal part, of a conical shape, and free in the arterial tube, was called the plug. This was united at its base to the outer portion of the clot, and was called the *covercle* (coverlid). Moreau explained it by the retraction, and the contraction or puckering of the artery; Pon-teau, by the swelling of the cellular tissue around the circumference of the extremity of the divided artery. These three theories prevailed over all others until the time of Jones, who ascertained that all these circumstances contributed to the obliteration of the vessel, and to the provisional suspension of the hæmorrhage. Afterwards the cut extremity of the vessel exudes coagulable lymph, in sufficient quantity to separate completely the internal and external clot, and to form that which Jones calls the third clot. To these causes Koch has added the double influence of a particular action of the blood, which renders it obnoxious to flowing through a divided vessel (in the same manner as it ceases to flow in the umbilical arteries when the cord has been divided); and of a want of suction on the part of the capillaries, arising from the removal of the part in which the terminations of the arteries take place. Thus, after amputations, Koch does not interfere in any way with the orifices of the vessels; but, as he employs an indirect means of compression, he cannot be said to employ pure expectation.

2. *The Method by pulling down the Artery*.—This is rarely applied to the arteries but in removing some tumours, the connection of which threaten to lose much blood; it is a useful means of securing retraction of the vessels.

3. *The Method by Bruising*.—Ledran having observed that the females of certain animals bit through the cord, and concluded, that it was the bruising caused by the teeth that hindered the hæmorrhage. He, therefore, bruised with the forceps the spermatic artery, in the removal of the testes, and succeeded. Jones has demonstrated, that bruising acts upon the internal coats of the artery, tears them, and that their flaps serve to arrest the blood, and favour the formation of the coagulum.

4. *The Method by Folding the Artery*.—A small part of the divided artery is denuded and folded upon itself. It has been advised for the intercostal artery, and has succeeded on arteries of small size.

5. *Styptics*.—It was formerly advised to insert small pegs of alum, sulphate of copper, &c. into the orifices of arteries, like corks. This method is justly fallen into

desuetude with regard to caustic applications, agaric, and other astringents; it is enough to say, that, however efficacious they may be when applied to the smaller vessels, they are quite inefficient in regard to the larger trunks. Cobweb and amadou, moreover, adhere in such a manner that they are not detached except with difficulty, and after a considerable period. Sponge is worse. Dupuytren has often been obliged to separate portions of this substance, in layers, with the forceps and scissors. Resin, also, when it becomes combined with blood and charpie, forms hard, irregular lumps, which irritate the tissues they are in contact with.

6. *The Method of Cauterization.*—This is only to be done by the actual cautery. For the application, we have before given the necessary rules. It is uncertain as far as regards the larger vessels. For the lesser arteries, it is a valuable means of resource, and we shall speak of it again in our description of many operations.

7. *Mechanical Plugs.*—We have already seen that cones of alum, sulphate of iron, &c. were formerly introduced into arteries; but their astringent action only was then reckoned upon. A long time ago wax, also, was employed to obliterate the arteries of the teeth, or such as had retracted into the interior of bones. Some different analogous procedures have been tried on the arteries of soft parts:—1. Wax. This being introduced under the form of a very delicate stick, the operator pinches the end of the vessel, and thus raises a knob of that soft substance within the vessel, which the blood has much difficulty in expelling. 2. A stylet, which Chastanet made use of to irritate the inside of an artery (Velpéau). 3. The catgut, or bougie, which M. Miguel d'Amboise tried upon dogs, introducing it about an inch deep into their arteries. In these it produced early and constantly a morbid action, which incapacitated them from receiving blood, although they were not mechanically obliterated. This method, combined with a ligature placed over the stuffed portion of the artery, may perhaps be useful in cases of ossification of the arteries. But M. Mance, who has made several experiments on this subject, has always found the internal clot, formed around the foreign body, fall into a state of putrefaction soon after its formation, so that hæmorrhage comes on unless a long and solid clot be formed between the foreign body and the next collateral branch above it.

8. *Direct Compression.*—Petit directs this to be made, in urgent cases, by the fingers of assistants, who relieve one another by turns, or sometimes by means of a particular apparatus. It is commonly united with cauterization; or, in the flap operation, it may be conjoined with folding back the artery.

9. *Indirect Compression* is applied on the

course of an artery, and usually with a tourniquet. It is the securest plan to join with this, for a short time, direct compression; we thus favour particularly the formation of a coagulum. After this manner Koch proceeds after amputations, as will be seen in the following description. The limb being removed, the operator places the flap on the wound, and maintains it by agglutinative bandages. A longitudinal compress is fastened along the course of the artery by a single bandage. The stump is placed in an elevated position, and a gentle pressure made upon it by the hands of an assistant for one or two hours, or as long as strong pulsations remain. When these have ceased, and the dressings are tinged red by the lymph which has exuded, all danger of consecutive hæmorrhage has disappeared, provided the patient remain quiet (Koch). The exudation soon ceases, and the dressings become cold, stiff, and dry.

10. *The Method by Ligature*, described by the ancients, revived by Paré. This method comprises several modes of proceeding, which vary according to the parts comprehended with the artery in the ligature, the materials of which the ligature is made, the manner of securing it, and the manner of disposing of its ends.

1. With respect to the parts comprehended in the ligature, A. Paré seized the veins and arteries, a portion of the muscles or other circumambient parts, and tied them altogether with a double ligature, thinking that thus the union of the vessels would proceed with more certainty and security. Dionis passed the thread into the flesh by means of two curved needles, and sometimes embraced at once even the vessels, the soft parts, and the skin. Desault was the first in France to recommend tying the artery alone; however, when the vein was close to it he tied them both together. At present the *immediate* ligature, or that which embraces the artery only, is generally preferred.

2. With respect to the materials of which the ligature is made. At first thread, single or double, was used. Ruysch proposed thin strips of leather; Veitch and Lawrence, very fine silk; Physick, fine strips of doe-skin; he proposed also metallic ligatures; others the web fresh from the silk-worm, catgut, &c. In France we prefer single or double thread, or narrow tape for the larger arteries.

3. With respect to the instruments employed. The *bec à corbin* of Ambrose Paré has given place to the dissecting forceps and *valet à patin*, revived with slight modifications under the name of the *fixed* forceps of Graefe or Amussat. Straight or curved needles are used. The tenaculum of Broomfield has been in vogue for some time past. Samuel Cooper recommends a double tenaculum; Columbat has constructed a very ingenious forceps which serves at once to

seize the vessel, place, and tie the ligature. Such instruments are too complicated for general use*.

4. With respect to the manner of fastening the ligature. Dionis cites two remarkable modes of proceeding; one in which the ligature was tied upon a small compress, and which, applied to aneurism, has lately obtained the name of Scarpa's method; another which consists, after the artery has been embraced, in traversing it from side to side with a ligature, previous to tying that—a plan revived by Astley Cooper. Jones employed the finest possible ligatures, and tied them very tightly in order to cut through the internal coats of the artery. Jameson prefers to use thin strips of doe-skin, moderately tightened, to act upon the same coats.

5. With respect to the *time* which the ligature should be continued, Jones and Travers pretended that a ligature applied for six, twenty, or fifty hours, and then removed, was sufficient to obliterate the artery; this was called the *temporary* ligature. The majority of surgeons in the eighteenth century permitted the ends of the ligature to hang out of the wound, in order to pull it away when the division of the artery should be effected. At present one end of the thread is cut off close to the knot, and the other only left to hang from the incision. Veitch, in 1806, proposed to cut both ends close to the knot, and to unite the wound, leaving the ligature to the efforts of nature. In order to favour abortion, when this method is used, animal ligatures are resorted to.

In *estimating the value* of these methods, it is to be observed that surgeons are divided upon two systems. One party, with Jones, pretend that to hasten the adhesion of the arterial walls, the internal coats should be divided; another, to which belong Crampton, Scarpa, and Jameson, declare this precaution useless, or even injurious. There are facts for and against both theories. On the one hand, ligatures which are too fine may cut through the artery before the adhesion of the coagulum and obliteration have taken place; whilst ligatures too lax are sometimes driven off by the impulse of the blood. We ought, therefore, to choose ligatures proportioned to the size of the artery, and tie them with just sufficient firmness to prevent their being thrown off. We should comprise no other parts with the artery, except when this appears diseased, for then it is liable to be divided too readily. In such a case, as we have before mentioned, the vessel may be tied upon a foreign body placed within it. With respect to the materials to be employed for a ligature, when we do not propose to unite by the first inten-

tion, the question is unimportant. When this union is attempted, the case is different. Then we find that the hanging out of the ends of the ligatures hinders cicatrization, and that vegetable threads, if left in the wound, give rise to consecutive abscess. Metallic threads appear to remain in the body without producing inconvenience, but they have only been tried yet upon dogs. We should prefer, therefore, doe-skin, not soft, as Jameson advises, but twisted, as Physick and Dorsay employ it. This cuts the internal tunics as vegetable thread would do, and is readily absorbed; consequently, both extremities may be cut close to the knot. Those who prefer vegetable thread must leave out one end, and not remove it until, having quite divided the artery, it is ready to fall out of itself. These preliminary observations having been premised, let us proceed to the manual operation.

In employing the *immediate* ligature, the surface of the wound having been sponged, the surgeon proceeds, guided by his recollection of the situation of the vessels, by the sight of the bleeding points, which the removal of the assistant's fingers discovers, or by the jet of blood made by relaxing the compression on the arterial trunk, to seek the arteries. He seizes each of these with the forceps, placing one blade on the outside, the other in the interior of the vessel (Des-sault); or he lays hold of it obliquely, so as to flatten its sides between the blades. He then draws out the vessel a little; an assistant passes a thread under the forceps, ties it once slightly, and holding its extremities tightly in the palm of the hand, with the three last fingers, he extends the index-finger of each side along the thread, so as to place their dorsal surfaces in opposition, directs the ligature beyond the forceps on the artery, and then, by separating the threads by the pulps of the index-fingers, makes the knot. On this another assistant places his finger, to prevent its becoming loose while the second tie is made in the same manner, and the knot completed. Now only does the surgeon relax his forceps; he has the compression removed, in order to satisfy himself that the artery is completely stopped, and proceeds to search for the other vessels.

When the arteries retract themselves deeply in the flesh, or under aponeuroses, it is requisite to divide these parts.

The forceps are only useful to take up large arteries, and then perhaps the tenaculum is preferable. The latter instrument is almost always required for small arteries. It is used by passing its point across the artery, in order to perforate its walls. The ligature is then applied in the ordinary manner already described. The tenaculum always takes up with the artery a little of the surrounding cellular tissue.

In a similar mode are used the *valet à patin*, the forceps of Amussat or Graefe. These being closed by particular mechanism are

* The attentive reader will observe that the author omitted, in his preliminary enumeration of the circumstances that make the method by ligature vary, this head.

very useful when the surgeon, having no assistant, is obliged to tie the ligatures himself.

The surgeon who employs the *mediate* ligature passes the two ends of the thread through two curved needles. He buries the first of these in the flesh, about half a line from the artery; passes it at about two or three lines above this, and brings it out on the opposite side. He makes the other needle describe a semicircle in the opposite direction. The vessel is thus completely surrounded, and nothing remains but to tie the ligature. One needle may serve to make the two semicircles in succession.

11. *The Method by "Refoulement"** (Amussat).—It consists in seizing the artery in a transverse direction with a pair of forceps; then, with another pair, called *pince à baguettes*, the blades of which, instead of being indented, are cylindrical, the artery is to be pinched above where the first pair were applied. This pinching suffices to break the internal coat; then the "*pince à baguettes*" are drawn from below upwards along the vessel, so as to push back the internal membranes, which burst into several pieces. The blood arrested by these pieces forms a coagulum more quickly than usual, and the coagulum obtains more numerous points of attachment than ordinarily takes place. *Refoulement* has been employed with success on dogs, but has only once been used on man. This was in a case of aneurism, and it did not succeed.

12. *The Method by Torsion*.—Vaguely indicated by Galen, re-discovered by M. Amussat, claimed by Velpeau and Thierry, torsion reckons at present many successful results.

M. Amussat's procedure. The extremity of the artery is seized with the fixed forceps, and is drawn out about five or six lines. With a common forceps the surrounding tissue is detached and pushed back towards the wound. Then, while the thumb and fore finger of the left hand fix the origin of the artery, the right hand is employed to give the forceps five or six turns on its axis, and the operation is finished.

The torsion may be continued to such a degree as to break the artery and separate the portion contained in the branches of the fixed forceps, but this is unnecessary. In order to prevent the twisted artery from protruding beyond the surface of the wound, it is sufficient to fold it backwards towards the wound.

M. Thierry's Method.—He is contented to seize the end of the artery with a pair of common forceps, or the *valet à patin*, and turn it round five or six times. The first mode of proceeding is the best. Amussat

has observed, that when the artery is not fixed, the torsion is extended as far as its next collateral branch. M. Velpeau also fixes the artery either with the fingers or with a second pair of forceps, as M. Amussat did at first. Velpeau turns the artery on its axis from three to eight times.

Torsion ruptures the inner coats like a ligature, but to a greater extent, and forces their debris into the inside of the vessel. The coagulum is perfectly arrested by the cap which the external twisted coat forms; and when the artery is sound, torsion is preferable to ligature.

13. *The Method by Seton*.—M. H. Jameson proposes to traverse the vessel with a seton of doe-skin, two or three lines thick; his experiments in this way, with dogs, having been perfectly successful. M. Carron du Villards obtained the same success by traversing the artery with a metallic or vegetable thread. We have before seen, that Dionis and A. Cooper have united this method to the ordinary ligature; and, notwithstanding the reprobation of many surgeons, we believe it to be a subject that deserves serious attention, and new experiments.

14. *The Method by Pinching*.—Temporary ligatures having succeeded in some cases, it was tried whether the rupture of the inner coats, repeated several times in a short portion of the course of an artery, would obliterate it. Maunoir, in 1820, invented, for the purpose, a forceps without teeth, which had a considerable resemblance to the "*pince à baguettes*" of Amussat. M. Carron du Villard, also, succeeded by this method in animals; but M. Amussat has made very numerous experiments, without once obliterating the artery. Hence this method *alone* should be rejected; but, united with the ligature, it promises the happiest result. M. Amussat conducts the united operations as follows:—The ligature having been applied, the artery is seized transversely above it with the "*pince à baguettes*," and the internal coats broken, through all their circumference, without injury to the outer coat. One, two, or more pinches may be made. The ligature only serves here to favour the formation of the coagulum; but the remarkable circumstance is, that the coagulum adheres firmly to the artery, at every point, when the internal coats have been divided. This method, which is quite new, appears to us well worthy to be investigated. If its efficacy should be confirmed on the human subject, we have no doubt that it will be substituted, at some period, for all others, at least with regard to the great arterial trunks.

* *Refoulement* means here a ramming or forcing back—no English word presenting itself to my recollection equivalent to the expression, this has been retained.—T.

Reviews.

A New and Complete Manual of Auscultation and Percussion, applied to the Diagnosis of Disease. Translated from the French of Dr. Raciborski. By W. Fitzherbert, B.A.

WE have much pleasure in introducing this Manual in its English garb; our readers will remember our notice of it previous to the appearance of any translation. An analysis of, or any extract from it now would therefore be superfluous. It far excels any of the *attempts* that have been made in this country to bring into a brief space the numerous and important diagnostic signs furnished by the stethoscope; and it moreover includes the auscultation of the abdominal viscera, as well as those of the thorax. If our readers follow our advice, they will possess themselves of it, and by it obtain an easy acquaintance with an extensive subject.

The translator has been somewhat too faithful, having put almost word for word, instead of compressing the exuberant French idiom into our compact and striking English expression. We would remind him, too, that there is not much of good taste in dedicating a *translation*, even though it be to an "M.D. Cantab." and a train of "&c. &c." We venture to say he will not repeat the dedication in any translation he may hereafter make.

—o—

SLEEP.

SLEEP may be defined as that state which is intermediate to life and death. The mental functions become fatigued by long continued action, and the natural remedy for that fatigue is sleep.

"—— the innocent sleep——

Sleep that knits up the ravell'd sleeve of care,

The death of each day's life, sore labour's bath,

Balm of hurt minds."

Sleep may be induced by many causes—such as swinging, by heat, cold, the murmuring of a stream, the ticking of a clock, or any other monotonous sound. Boerhaave prescribed for a patient on whom narcotics had not the desired effect, the dropping of water on a brass pan—this lulled the individual to sleep. Bichat divided life into organic and animal, the first performing those functions which nourish and sustain the body, the second making the animal a sentient being. He considered the first went on, and that the second was suspended in sleep. It is probable that in sound sleep

it is so; but in the state of slumber, or when sleep is not very profound, we may hear and feel, and the impressions thus caught often form the basis of dreams, by that mysterious power of association which the minutest object may bring into action. All animals sleep—in man much depends on habit—it may be kept off a considerable time by stimulants. It is said that Voltaire formed a club, the members of which were to do without sleep; they kept themselves awake for several days and nights, by means of strong tea and other stimulants, but they were beaten at last, and were obliged to sink into the arms of the very *friend* they had treated as an *enemy*. Napoleon Bonaparte, General Elliott, Frederick the Great, and the illustrious surgeon, John Hunter, may be mentioned as a few among the many who did with the small quantity of sleep necessary for recruiting the strength; on the other hand, Parr slept away three parts of his life, and de Moïtre five-sixths of it. Soldiers have been found asleep on the field of battle, and I believe it was at Trafalgar some boys were found fast asleep under one of the most active guns of the squadron. Shakspeare, too, has spoken of the "ship boy's eyes" being closed

"Upon the high and giddy mast,
And in the visitation of the winds."

Sleep differs in various persons as to profundity, and it differs also during the night. It is generally heaviest during the first five hours, and becomes lighter towards morning. Hence we often find morning dreams more consistent than others. Children and persons of little reflection generally sleep soundly. Health and disease also modify sleep; the one being full of tranquillity, the other feverish and unrefreshing. The author of Night Thoughts has spoken of sleep forsaking the wretched, and

"Lighting on lids unsullied by a tear."

I question whether a subdued feeling of melancholy is inimical to sleep—indeed I think it rather tends to the inducement of that state—so no doubt does a feeling of contentment; on the contrary, all violent emotions, whether of joy or pain, are inimical to repose.

Deep sleep has been called "the image of death;" Shakspeare has thus made Jacchimo speak thus in the chamber of Imogen: "Oh sleep, thou ape of death, lie dull upon her,
And be her sense but as a monument
Thus in a chapel lying."

Keats, too, has beautifully described the progress from slumber to deep sleep, in his exquisite "Eve of St. Agnes;" when he speaks of Madeline when quite asleep, he says she is

"Blinded alike from sunshine and from rain,
As though a rose had shut, and was a bud again!"

With regard to the state of the mind and body in sleep, the following epigram appears to me very expressive:

"Come, gentle sleep, attend thy votary's prayer,
And, though death's image, to my couch repair;
How sweet, though lifeless, yet with life to lie,
And without dying, oh! how sweet to die!"

—o—

The London Medical

AND

Surgical Journal.

Saturday, August 22nd, 1835.

—

MEDICAL REFORM BILL.

ON Monday last, Mr. Warburton presented a petition from forty-eight licentiates of the College of Physicians, against the revised code of by-laws lately promulgated by the College, which the petitioners described as not only unjust but illegal. Mr. Warburton, in supporting the petition, said that the new by-laws were not only most illiberal but altogether unwarranted by law. He informed the house that Mr. Wilcocks, who had made the subject of medical jurisprudence the peculiar object of his studies, gave it as his unqualified opinion before the Medical Committee of the House, of which Mr. Warburton had the honour of being Chairman, "that the Charter of Hen. VIII. having laid down no such rule for perpetuating this corporation, the College had no legal right to set the restrictions complained of, but were bound to examine licentiates, and judge of their claims to admission by their actual qualifications, and not with reference to the place at which they have been educated."

Mr. Wakley supported the petition, and declared his full conviction, founded upon long experience and examination of the subject, that the College of Physicians, so far from having promoted the honour or dignity of medicine, or raised the character of its professors, had been, ever since its incorporation, a mischievous incubus. He trusted that

Mr. Warburton would occupy his leisure during the recess, so as to be able, on the opening of the next session of Parliament, to bring forward a measure founded on the Report of the Medical Committee, putting the profession on an entirely new footing.

Mr. Warburton said he would have brought forward the measure alluded to, but for two interruptions. First, the burning of the House, which involved the destruction of nearly two-thirds of the printed evidence of the Committee, which had consequently again to be written out from the short-hand notes, and printed; and secondly, the breaking up of the Ministry. He trusted, however, that in the beginning of next session, he should be able to fulfil the honourable Member's wishes.

We stated in No. 178 of this Journal (July 11), that "the new regulations of the College of Physicians were of little value, and cannot render the College popular or increase its friends." Our prediction has been fulfilled. The proceedings above detailed must be gratifying to every independent reformer, as medical reform is certain. The tone in which Mr. Warburton exposed the impolicy of the new by-laws shews the mind of that gentleman towards all medical corporations. It is manifest that he is determined to reform and place the profession on a totally new footing.

Mr. Wakley's designation of the College of Physicians as "a mischievous incubus" on the profession, was most appropriate. Had the College done their duty at any single period since their incorporation, neither the College of Surgeons nor Apothecaries' Company could have arrived at the head of the profession.

But the College of Physicians were to be most exclusive; and such is their consummate folly, even when the arm of the law is against them, that they cannot ward off the blow by the adoption of liberal and pacific measures. Their

bad example, has always been followed by every other medical corporation in the United Kingdom, and hence the necessity of reform in every one of these bodies. They surely cannot expect to escape when the municipal corporations are undergoing those salutary changes which the public have required. Nevertheless the Colleges of Physicians and Surgeons, having great interest at court, are so insane as to imagine they can frustrate the decision of the House of Commons, though passing events have clearly demonstrated that the time for such influence is gone by.

It appears to us that efficient medical reform is certain, and we have no doubt but that it will be based upon sound principles. We have reason to know that a good preliminary education will be required of those intended for the medical profession; that there will be a Metropolitan University for granting degrees; that there will be one faculty in each section of the empire, and that medical education and practice will be materially improved. It is quite certain, that the career of the British medical corporations approaches its end.

We feel convinced that Mr. Warburton's intimate knowledge of the continental system of medical education and practice, and of that of this country, will lead him to propose a measure suited to the wants of society, and beneficial to the interests of the profession. He will doubtless change the hospital system, the election of collegiate councils and professors, the appointment of parochial medical officers, the education of chemists and druggists, and the remuneration of general practitioners by fees.

It is also certain that there will be an obstetric examination board, and this will be chosen from the ablest obstetricians, physicians, and general practitioners in this capital, and from the most eminent of Dublin and Edinburgh physicians, and surgeons. It is perfectly certain that any reform will render the profession much more beneficial to the public than it is at present.

The medical profession are deeply indebted to Mr. Warburton for his Anatomical Bill, and we have no doubt but his medical reform act will transmit his name to the future medical historian as a sincere friend to humanity and medical science.

—o—

Hospital Reports.

WESTMINSTER HOSPITAL.

Acute Eczema Impetiginoides, treated successfully, followed by Abortion, leading to fatal Puerperal Peritonitis. With post-mortem Examination.

SARAH HALSEY, aged 43, a laundress from Codicote, Herts, was admitted July 21st, into Queen Anne's Ward, as a patient of Mr. Guthrie. She is a married woman, and has had ten children, nine of whom are living. During one of her pregnancies, nine years since, she was engaged in the fields making hay, when she scratched the right leg with a thorn, to which circumstance she refers the production of an eruption in the leg, which soon after appeared, and of which she has had frequent attacks since, all of them, however, being confined to the leg in question. Four months ago, without any obvious or assignable cause, a similar attack made its appearance in the same situation, which, however, has subsequently spread all over the body, except the face, which, as yet, remains free.

The eruption appears to commence in the form of minute vesicles, not larger than pin's heads, which are attended with an intolerable heat and itching. These vesicles break and discharge a thin, watery serum, numerous minute abraded surfaces are thus produced, which become confluent, and lead to the formation of thin, scaly crusts, many of which have a considerable resemblance to psoriasis, but are surrounded by a great degree of erythematous-like redness and inflammation. The crusts are at first mostly of a round or oval form, and when they fall off, or are removed by scratching or other means, the surface beneath them is found very red and irritable, and secretes an acid, irritating fluid. These naked and unprotected patches, many of them coalesce, and in this way very extensive surfaces on the trunk and extremities become as completely deprived of cuticle as by the application of a blister. In several places rather large, but irregularly shaped phlyzaceous pustules are seen, particularly where the eruption has made the most progress. The tout ensemble, at present, comes up very closely to the idea conveyed by Alibert's name for this affection—"darte squameuse humide." The itching and heat of skin annoy the pa-

tient very much. At the same time that the eruption appeared, the catamenia became irregular, and have continued so since; there being a very scanty "shew" at the proper periods. The appetite is very much impaired; tongue is furred; bowels constipated; pulse frequent, and there is great thirst. Mr. Guthrie has ordered her a warm bath every night, which she has had, and thinks they do her a great deal of good. She has also been taking the juice of the *menyanthes trifoliata*, in doses of half an ounce three times a-day. This, however, caused irritation of the stomach and alimentary canal, with vomiting; it was therefore diminished in quantity to two drachms three times daily, but it does not appear ever to have agreed with her.

August 1st. To-day there is some appearance of the eruption in the face, it being covered with minute elevations, like incipient vesicles. The rest of the surface is in as acute a state of inflammation as ever. The *menyanthes* has been omitted, by direction of Mr. Guthrie, and the following mixture prescribed:—

R. Liq. ammon. acet., $\frac{3}{4}$ iss;
 Liq. antim. tart., $\frac{3}{4}$ ss;
 Magnes. sulphat., $\frac{3}{4}$ ss;
 Mist. camphor., $\frac{3}{4}$ vj. M. ft.

Mist. capt. cochl. iij 4tis horis.

To have the surface moistened occasionally with thin gruel.

3rd. Continues much as before, but, if anything, the eruption is more aggravated than at last report, and presents more of the impetiginous character, from the presence of a greater number of pustules. She complains more of the heat of surface and itching; also of excessive thirst. The face is flushed and hot; tongue is very much furred; pulse 144, small, but strong. Mr. Hale Thomson, who acted for Mr. Guthrie to-day, directed the *magnesie sulphas* to be omitted in the mixture, as being likely to irritate the digestive canal. He also directed her to lose six ounces of blood from the arm, to continue the warm bath, and to have toast-water ad libitum.

4th. She feels much better to-day; there is much less itching, pain, and heat, both in the arms and legs, and the crusts are in many places desquamating nicely; the secretion of acrid serum appearing to be entirely suspended. The erythematous inflammation around the crusts is likewise drying away. The face is not so flushed, nor have the vesicles on it made any progress, but, like many others on the hands, &c., have disappeared, apparently by the absorption of their contents. The blood drawn yesterday was buffed. The thirst has a good deal diminished; pulse 140, and not so strong as yesterday. She complains of pain in the hypogastrium. An evaporating lotion has been applied to the arms, where there is most of the erythematous redness.

Contr. mist. diaphoret.
 Repr. baln. tepid.

6th.—On the evening of the 5th the pain in the hypogastric region increased, and she was seized with uterine hæmorrhage, which terminated in the abortion of a fetus at apparently about the fourth month. She altogether denies having had the least idea of being pregnant. The inflammation of the surface has now almost entirely abated, the acrid secretion has entirely dried up into crusts, which are now rapidly falling off, all over the body, leaving nearly a healthy cuticle beneath. Indeed, the very marked and rapid improvement produced by the bleeding is altogether surprising. Pulse 150, softer and fuller than before, tongue not nearly so furred, but still red and flabby, countenance flushed and somewhat anxious. Mr. Guthrie has ordered her a little arrow-root and wine, and such other restoratives as she can take.

8th. The eruption has now almost totally disappeared, by the desquamation of the crusts. During the last two days, however, symptoms of puerperal peritonitis have been present. There has been an insidious pain in the hypogastric region, aggravated upon pressure, with a considerable degree of febrile disturbance of a low adynamic type. Pulse 150, small and feeble; the surface in general is cold, whilst the face is flushed; countenance sunken and anxious; pupils dilated; there is complete anorexia, tongue is red, glazed, and intersected with fissures; sordes have collected about the teeth and lips, bowels have been costive, until she took an aperient yesterday, since which they have been relieved about twice daily; has had a great deal of sickness and retching, which still continue. She has rejected the effervescing draughts, with an excess of volatile alkali, which have been prescribed for her, but kept down a draught with a drop of hydro-cyanic acid, which Mr. Soden ordered her this morning.

Mr. Guthrie has directed her to have bladders filled with warm water applied to the abdomen, and an enema to be administered immediately.

9th. Yesterday afternoon, Mr. Guthrie saw her with Dr. Henry Davies, who prescribed the following:—

R. Hydrarg. submur., gr. xvij;
 Confect. opiat, gr. vj. M. ft.

Pil vj. Capt. tertiis horis.

R. Ammon. Carb. \mathfrak{z} j;
 Aquæ, $\frac{3}{4}$ viij. M. capt. cochl.
 Ampl. singula semihorâ.

The uterus was examined per vaginam, but no lesion of any description detected. She remains much as before.

10th. Does not complain of the pain in the abdomen; the countenance, though less anxious, is yet extremely sunken, and expressive of debility; the pupils are not nearly so much dilated. Pulse 120, extremely feeble; surface not quite so cold as on the 8th, tongue is still dry and glazed, has occasional hiccough.

App. Emp. canthar. amp. regioni hypogastric.

11th. This morning early Mr. Soden reports, the pulse was not perceptible at the wrist, and it is now (one P.M.) so small and feeble, as scarcely to be counted; tongue, &c. much as yesterday, feet cold, has no pain except from the blister. Has had a troublesome diarrhoea, the motions being passed involuntarily. She slept but little during the night; answers questions coherently. The calomel pills have been omitted. Has had a cretaceous draught, and small doses of ammonia and tincture of cardamoms, frequently repeated, as well as port wine.

12th. She gradually sank, and died yesterday evening about five P.M.

Post-mortem Examination.

We had not an opportunity of being present on this occasion, but the following is the report we have received:—The convolutions of the intestines were extensively adherent to each other, by recently effused lymph. There was from a pint to a pint and a half of sero-albuminous fluid, almost resembling pus, in the cavity of the pelvis. The uterus, with its appendages, were all in a state of great hyperæmia, especially the fimbriated extremities of the fallopian tubes, the internal surface of the uterus, and the os tinæ. It does not appear that the other viscera, so far as examined, presented any morbid appearances.

Observations.—This case presents many points of high interest. In the first place, taken in connexion with another case formerly reported from this hospital (vol. vii, p. 381), it not only seems to substantiate Rayer's observation of its greater frequency in females, to which he adds, "particularly at the critical epoch of life"*; but would seem to show, that irritation or derangement of the uterine function has more to do with the development of this cutaneous affection, than he even represents; for, in both these cases, there was uterine disturbance, and no assignable cause for the eruption. Secondly, the remarkable benefit produced by the venesection, and the unfortunate production of abortion, consequent on the repulsion of the eruption, but which no foresight could have prevented. Here it may be well to inquire, what was the cause of the abortion? Did the irritation of the alimentary canal, produced by the menyanthes, extend to the lower bowels, and irritate the uterus by sympathy of contiguity? Or, must we regard the abortion as solely consequent on the metastasis of inflammation from the skin to the uterus? We will leave our readers to solve these interesting questions; and will just remark,

in conclusion, that the occurrence of puerperal peritonitis, after abortion, is of so rare occurrence (and in this we are supported by Dr. Davies), as of itself to confer intrinsic interest on the case.

Inflammatory Phymosis, with general Erysipelatous Inflammation of the Genitals.

Wm. Barnett, aged 25, was admitted into Henry Hoare ward, June 23rd, as a patient of Mr. Guthrie. He has been suffering both from gonorrhœa and chancre, the former during six, and the latter during one month. He likewise had buboes in both groins. He became an out-patient at the hospital, and took blue pill three times daily, and applied the black-wash to the sore. About a fortnight previous to his admission, the gonorrhœa rather suddenly ceased. On the Sunday previous, without any assignable cause, inflammation came on in the prepuce, extending to the penis, the scrotum, and, in fact, to the whole external apparatus. Severe phymosis was induced by the præputial inflammation. There was great pain, heat, redness, and tumefaction. Fluctuation was distinguished in the left bubo, which was opened at the time of his admission, as well as the prepuce divided, by Mr. Hale Thomson.

24th. Much the same as yesterday. The urine deposits a copious sediment of the orange-coloured lithates.

25th. The inflammation in the genitals is more severe; the redness and tumefaction being of a red glabrous kind, having the erysipelatous character, and are attended with great pain. The erysipelatous blush extends to both groins, especially to the right, the bubo in which appears now to have suppurated. Mr. Thomson opened the bubo, and evacuated a quantity of pus. He also made an incision with a bistoury, through the integuments of the penis, from the root to the prepuce, and another, not so large, through those of the scrotum, on the left side, where the tension was greatest. These incisions produced a little bleeding, which seemed to give him a good deal of relief. Warm fomentations were afterwards freely applied.

26th. Says that he feels relieved by the incisions, and the inflammation appears less acute. He is directed to have lint dipped in the tinct. benzoes, comp. applied to the wounds, and a linseed poultice over this dressing.

Rx. Acid. sulphur. dilut., 3 ij;
Decoct. cinchonæ, 3 viij.

M. ft. Mist. capt. cochl. iij ter in die.

27th. The inflammation has been considerably subdued, there being neither the redness nor tension that existed previously to the incisions being practised. He states that he now feels very easy. Tongue is

* Rayer on Diseases of the Skin, by Dickenson, p. 89.

covered with a thick white fur, with red margins.

Hæbeat pulv. rhei c sodâ statim.

29th. The powder was repeated yesterday. Much better; tongue is less furred and red; appetite improving—he has enjoyed his dinner of broth to-day; bowels are regular; pulse 108, feeble.

July 2nd. Going on well, both locally and constitutionally; the inflammation has entirely lost every urgent character. The wounds left by the incisions are filling up with granulations, which, however, are somewhat flabby.

4th. There is a progressive amendment.

9th. The wounds in the scrotum and the penis are rapidly filling up, and the granulations have now a red, firm, and healthy aspect. The appetite is good, and the general health is improving. He continues the bark mixture.

11th. The local mischief is becoming rapidly repaired, and the patient gets quite stout. The dressings have been changed for simple cerat.

14th. Much better; tongue is slightly furred, the appetite good, and bowels regular. He continues the mixture.

21st. The incisions have now completely cicatrized, but a good deal of deformity from thickening of the tissues of the penis, &c. remains. The prepuce has closed over the glans, notwithstanding the precaution of sponge tents, had been resorted to during the cicatrization; so that the glans can only be seen through the contracted opening. Mr. Guthrie proposes a little operation to remedy this defect, as soon as it may be prudent to employ the knife on an organ, which has been, so recently, the seat of severe mischief.

28th. Discharged relieved, and placed on the books as an out-patient.

—o—

Foreign Medicine.

Cholera in the South of France.

THE last accounts state that the scourge had diminished at Toulon, but was on the increase at Marseilles. On the 23rd of July the deaths, at the latter place, were 134, of which 129 were by cholera; on the 24th the deaths were 105, eighty-nine of which were by cholera. At Toulon the last bulletin only mentions seventeen new cases, and twelve deaths. It continues at Aix, and has appeared at Draguignan le Luc, Antibes, Lorgues, Nice, and Villefranche. There was a report of its having broken out at Beaucaire, but this would appear to have been premature. Nîmes, Montpellier, and Avignon, are still healthy. The disease seems as if unable to leave the sea-side; it has even been observed to lose much of its intensity as it advances inland in a radius

of at most two leagues from the coast about Toulon, which is the focus of the infection. Ice appears to have been the most efficacious remedy; it is swallowed in lumps. The practitioners at the above places are using against the choleric evacuations, glysters composed of prepared tannin, tincture of ratanhy and laudanum.

—o—

Case of Permanent Contraction of the Cremasters.

FRANÇOIS D., residing in the suburbs of Bordeaux, aged 62 years, while in the act of copulation, heard a violent noise at the door of the room. The surprise, the fear of being discovered in such a situation, but more than all, the sudden interruption of the act, produced an immediate tremor of the whole body. Acute pains of the hypogastrium and groins came on, and continued notwithstanding several means that were taken. On presenting himself to a medical man five months after, the testicles were found to be exceedingly painful to the slightest touch: and they were drawn and held up towards the arch of the pubis, leaving the cavity of the scrotum empty. They were moreover strongly fixed to the arch of the pubis, and immediately in front of the inguinal canal, into which they appeared to be nearly slipping. The pain caused by this pressure against bony parts, obliged the man to walk constantly with his body bent almost double.

The treatment employed consisted in emollient hip baths continued for a long time; demulcent poultices on the painful parts; repeated applications of leeches along the course of both inguinal canals, and frictions of the same with extract of belladonna. After two months of this treatment the cure was complete. The almost tetanic contraction of the cremasters ceased, and the testicles fell again into the scrotum.—*Journal de Médecine pratique de Bordeaux.*

—

Minute Structure of the Muscular System.

Dr. Alexander Thompson read a paper to the Académie des Sciences on the 27th July, on the above subject, the conclusions from which are as follow:—

1. None of the abdominal muscles of the perineum, the pharynx, or the bladder,

stop at the median line. Their fibres not only pass the line to be fixed to the bones of the opposite side, but in so passing they become interlaced with the fibres of the corresponding muscles of the opposite side, making with them an actual interjunction.

2. There is no perineal aponeurosis, in the meaning of MM. Gerdy, Blandin, and Velpeau, the aponeurotic lamellæ being formed by the interlacing of the tendinous fibres of the muscles of both sides.

3. The cremasters are independent muscles, and not prolongations of the lower fibres of the small oblique of the abdomen.

4. The round ligaments of the womb are only a transformation of the cremaster muscles.

5. The *gubernaculum testis* is nothing more than the cremaster accompanied with the vessels and nerves requisite for a glandular organ.

6. There is only one series of muscular fibres in the bladder, and these are arranged in a spiral manner, cross each other before and behind, and then are fixed by the tendinous extremities to the articular edges of the symphysis pubis.

Influence of Temperature on Mental Alienation.

M. Boulteville, of the Lunatic Asylum of Rouen, states that in the six months from May to October of the year, the medium temperature is 15 deg. 79 C., and of the other six, from November to April, it is 5 deg. 9. He found—

1. That the admissions were by no means frequent in the hot season—there being a diminution of almost one sixth.

2. That the action of temperature is more decided in the exits than the admissions, for there are more discharged in the warm months than in the cold, by a fifth. As the period of discharge, even when it takes place previous to cure, coincides most generally with the favourable condition of the patient, it may be deduced that an elevated temperature favours their amelioration.

3. That cures are more frequent in hot than cold weather; the difference in the entire cures being as two to one, and in the most readily perfected cures, or in the first three months of admission, greater still.

4. That the influence of temperature on

the mortality is strongly prominent, but in the inverse ratio of the preceding; for the cold seasons correspond with the greatest number of deaths, and the difference reaches one third.

The greatest number of deaths occurs in the month of April; July that in which they are fewest. It sometimes happens that the patients will resist a short but vigorous frost, while they sink under a moderate but steadily continued cold. Hence the most fatal months are those which come last in the revolution of the seasons.—*Gazette des Hôpitaux.*

Ophthalmophantome.

M. Andrieux has invented a kind of bronze bust, moveable on a pedestal, the orbital cavity of which is adapted to the reception of a human or a pig's eye. This eye, by means of a metallic rod, is made to execute all the movements of the human eye between the eyelids. The instrument—to which the above name is given—is intended to afford the students an opportunity of performing the various operations on the eye, and chiefly that for cataract, the difficulties that present themselves in the living subject being still in great measure existent.

Intermittent Fevers.

The following are a few of the numerical facts adduced by M. Maillot, a French military surgeon in Africa, on the above subject. From the 9th of February, 1834, to 21st February, 1835, he had in his hospital two thousand three hundred and fifty-four distinct cases of intermittent fever. Of these, one thousand five hundred and eighty-two were quotidian, seven hundred and thirty were tertians, and twenty-six quartans. As regards the hour of the paroxysm, one thousand six hundred and fifty-two came on between midnight and mid-day, and six hundred and twenty-eight between mid-day and midnight: or, more in detail—

1. Of the one thousand five hundred and eighty-two quotidians, one thousand and ninety-nine came on from midnight to noon, and four hundred and ninety-three from noon to midnight.

2. Of the seven hundred and thirty tertians, five hundred and fifty were from midnight to noon, and one hundred and eighty from noon to midnight.

3. Of the twenty-six quartans, thirteen were from midnight to noon, and the same number from noon to midnight.

The great majority of attacks were from nine in the morning to noon, from ten o'clock to noon for the quotidianas, and from nine to ten for the tertians.

Of the seven hundred and thirty tertians, six hundred and seventy-nine returned on even days, and three hundred and sixty-one on odd days.

On the score of complications of the two thousand three hundred and thirty-eight intermittents, six hundred and fifty-eight were simple, and one thousand six hundred and eighty complicated: they may be subdivided into—1. Quotidianas, one thousand six hundred and seventy-six complicated, and four hundred and six simple: 2. Tertians, four hundred and eighty-eight complicated, and two hundred and forty-two simple: 3. Quartans, sixteen complicated, and ten simple.

Of the anatomical condition of the body; the spleen was found to be diseased alone, twenty-five times; the peritoneum alone, once; the encephalon alone, four hundred and sixty-eight times, and, of these, four hundred and twenty-five in an irritative form, and forty one in an inflammatory form. The spinal cord was diseased alone, once; the lungs one hundred and three times; the pleura, five times; and there was one case in which the only visceral complication or lesion found was an exudatory angina.—*Revue Medicale.*

—o—

GRADUATIONS IN MEDICINE AT THE UNIVERSITY OF EDINBURGH.

August 1, 1835.

(Concluded from our last.)

FROM ENGLAND.—Theodore Boisson, on Hypochondriasis; Hatton Turner Bowle, on Syphilis, with Remarks on the Mercurial and Antimercurial Treatment; Robert Chevallier Cream, on the Chemical History and the Physiological and Therapeutical Action of Tartarized Antimony; George Ebenezer Ely, on Dropsy; William C. Enlgedue, What evidence have we that the External Senses can be transferred to other parts of the body, as is said to occur in Somnambulism? William Chambers Evans, on Bronchocele; William Giffard Everett, on Epilepsy; Edward George, on Asphyxia from Submersion; John Griffin, on Varicose Veins; William Henry Hooper, on Delirium

Tremens; Charles Thomas Hamilton, on Erysipelas; Edward James, on Œdema of the Glottis; James Kendrick, on the dependence of Diabetes Mellitus on Disease of the Stomach and Intestines; Thomas Carey Laver, on Burns; David Lietch, on Respiration; William Macgill, on Retention of Urine; George Merryweather, on some of the Mutual Relations of the Atmosphere and Ocean; Richard Parnell, on the Causes of Death by Asphyxia; Astley Purton, on Croup; Frederick Row, on Phthisis Pulmonalis; John Glasier Seagram, on Pericarditis; Robert Shean, Observations on the most prevalent Diseases of British Soldiers in the East Indies, viz. Febris continua communis, Febris remittens, Biliosa, Hepatitis acuta, Dysenteria acuta; Thomas Henry Starr, on Diabetes Mellitus; George Strong, on Purulent Metastasis; James Surrage, on Puerperal Fever; Rowland John Traill, on the Modus operandi of Remedial Agencies in the Treatment of Inflammation; John Tucker, on the Physiological and Therapeutic Operation of the Solanææ; John Tunstall, on the Irregularities of the Secreting Function; John Knox Wade, some Observations on Disorders of the Intelligence; George Vaux, on Pathology and Treatment of Cerebral Apoplexy; William Wells, on Pericarditis; George A. F. Wilks, on the Nature of Respiration, and its Connexion with the Nervous System; Thomas Wilstrop, on Ascites; Peter Wood*.

FROM IRELAND.—Francis Anderson, on Ischuria Renalis; Thomas Andrews, on the Circulation and the Properties of the Blood; William Andrews, on Apoplexy; Samuel Bryson, on Peritonitis; Richard Woods Cooke, Practical Remarks on some Injuries of the Head; Joseph Henry Corbett, on Menstruation; Edward Paoli Drew, on Acute Hydrocephalus; Hugh Fitzpatrick, on the Pulse; John Fitzsimons, on Continued Fever; John Jeffries, on Aneurism; Richard Kennedy, on Rubeola; Francis James Lynch, on the Varieties, Consequences, and Treatment of Burns; Charles Mackay, on Phthisis Pulmonalis; Augustus Macculagh, on Syphilis; Patrick O'Connor Meade, on Hydrops Abdominis; William Lambert Methven, on Hepatitis; John Thomas Monypeny, on Ascites; John Morrison, on Inflammation of the Liver, and on the Seat and Connections of that Viscus; Edward Nevill, on Sensibility as a General Law of Organic Structure; Harward O'Farrel, on Iritis; John Peppard, on the Functions of the Brain; Joseph Samuel Prendergast, on Clap; Andrew Quinlan, on Aneurism by Anastomosis; James Reed, on Bronchitis; Robert Rodgers, on Aneurism; David Ross, on Injuries of the Head; James Ross, on Inflammation; James Maxwell Sanders, on Delirium Tremens; David Scannell, on Hy-

* Received his Degree on 22d November, 1834.

drocele of the Tunica Vaginalis; Epaphroditus Young, de Erysipellate.

FROM ABROAD.—Joseph Adams, Malta, on Delirium Tremens; Alexander Campbell, Persia, on Wounds of the Thorax; David Alexander Carnegie, East Indies, on Typhoid Fever; Thomas Clarke, Jamaica, on Capillary Circulation; Aaron Hart David, Canada, on Infanticide; William Marriott Finch, East Indies, on Pneumonia; John Llacayo de Pinteno, Spain, de Definitione seu Natura Febris; David Davidson Manson, New Brunswick, on Scarlatina; William George Prichard, East Indies, on Hypertrophy, with Dilatation of the Heart; William Roxburgh, East Indies, on Climate; John Smith, East Indies, on Uses of the Liver and its Secretions; Edward Quincy Sewell, Canada, on Dyspepsia; Stephen Charles Sewell, Canada, on Intermittent Fever; Henry John Tucker, Island of Bermuda, on the Relations of Life and Organization.

—o—

DISEASES OF THE GENITO URINARY ORGANS—NEW URETHRAL INSTRUMENTS.

WE this week present to our readers a modification of the urethral instruments lately introduced. These are Mr. Benjamin Phillips', but that gentleman has invented many others of great value, adapted to the different kinds of permanent stricture.

PLATE I. *Fig. 1.*—The model bougie, which is prepared in the following manner; an elastic gum tube should be chosen, the canal of which is lessened in capacity as it approaches the extremity upon which the preparation is to be placed. A mesh of cotton, such as is made use of in lamps, is attached to a piece of wire of sufficient length to traverse the tube.

This mesh should be sufficiently large, to completely block up the smaller end of the tube.

It is then drawn through the canal with sufficient force to become firmly impacted; a portion of the mesh is made to project much in the same manner as a lamp wick, and of the length of half an inch.

This projecting portion is then dipped into a composition formed of equal parts of diachylon, bees' wax, and shoemakers' wax. As soon as a sufficient quantity of the composition is taken up by the cotton, it is carefully kneaded, and when it has become nearly cool, it is rolled between two pieces of wood or stone, until it becomes of a nearly similar diameter to the rest of the tube.

Fig. 2 is intended to represent a strictured urethra, into which the model bougie has been introduced; it has taken the character of the orifice as well as of the anterior portion of the stricture.

Fig. 3. The model bougie, removed from the canal, bearing the impress of the stricture.

Fig. 4. It occasionally occurs that the orifice of a stricture is removed from the centre of the canal; in this case, we pass the instrument bearing the caustic, or indeed a small catgut bougie through this instrument, and are enabled, by the bolster at its extremity, to elevate or depress it at pleasure.

Fig. 5. A caustic apparatus: *a* the canula; *b* the instrument bearing the caustic.

Fig. 6. The portion of the instrument which bears the caustic: *a*, a platina tube; *b*, a canal composed of two-thirds of a circle, into which powdered nitrate of silver is placed; the heat of a spirit lamp is applied to the instrument, the caustic is fused, it is then suffered to cool, and we have a cylinder of caustic firmly impacted in the instruments.

Figs. 7 and 8. Similar instruments, curved.

Fig. 9. An urethra into which the cauterizing instrument has been introduced: *a a* the canal; *b b* the strictured portion: *c* the caustic instrument, with the caustic within the stricture.

Fig. 10. Similar to the former, except that the orifice of the stricture is not in the centre of the canal; here we see the utility of the instrument *fig. 4*.

PLATE II. *Figs. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10,* are figures which were presented by the model bougie upon being withdrawn from the urethra; they are faithful impresses of the characters of certain strictures, to which allusion has already been made.

The figures under *figs. 7, 8, and 9,* and along side of *fig. 10,* are placed merely to shew more plainly the character of the canal in those several cases.

Fig. 11 is a model of a sound which is, as nearly as possible, adapted to the shape of the canal of the urethra in the adult; the length should be from ten to twelve inches.

Fig. 12 is the urethrotome introduced into a strictured canal: *a a* the canal; *b b* the strictured portion; *c* the stiletto, which has been pushed through the stricture and then

withdrawn as far as the obstacle, serving as a director and also enabling us to estimate the length of the stricture, the canula being against the anterior and the stiletto against the posterior part of the obstacle; *d* the cutting instrument, which is projected and has incised half of the induration; *e* the canula; *f* a screw placed upon the cutting instrument, by which we are able to limit the quantity of the instrument which we shall project.

Fig. 13. Is the instrument by which I open a passage into the stricture for the caustic; at its extremity are presented four delicate cutting edges of a conical form; the tube or stem is of silver, and can be bent to any shape, by which we can adapt it to any portion of the canal.

—o—

DEPENDENCE OF DREAMS ON BODILY SENSATIONS.

DR. GREGORY relates of himself, that he dreamt he was on the top of Mount Etna, and his feet were much burnt by his near approach to the crater. The dream arose from his having a bottle of hot water to his feet, and he slumbered whilst it was there. He had been reading a short time before, of a journey to the top of that mountain. A French philosopher tried several experiments of this sort; he left his knees uncovered, and he dreamt he was on the outside of a diligence during a cold night. A person having a blister applied to the head, fancied he was scalped by a party of Indians. Should we be seized with cramp in the night, we dream of the tortures of the inquisition. If the rain patter against the windows we hear the sounds of cataracts; should the wind be high, the roar of thunders is in our ears. The Eltrick shepherd, in one of his poems, has given us a dream of terrific misery arising from the effects of thirst. The dreams of hypochondriacs generally arise from real sensation; and when after a full supper the stomach is distended, we fancy some offensive quadruped of immense weight is pressing on our breasts. It is said Mrs. Radcliffe, Dryden, and Fuseli, eat indigestible suppers in order to dream horribly; no one will deny that they succeeded. Opium eaters at first have dreams of transcendent beauty, but when the stomach becomes disordered by the long continued use of the

drug, nothing can exceed the horror and gloominess of their visions. The wonderfully fascinating and strange "Confessions of an English Opium Eater," bears testimony of the truth of this remark.

—o—

British Association for the Advancement of Science.

The sittings of the British Association for the Advancement of Science terminated on Saturday last. It was the general opinion that the meeting was the most successful hitherto held by the Association, and the foreign members spoke in terms of the highest praise of the hospitality with which they were treated. The greatest interest was taken in the proceedings by the respectable inhabitants of Dublin. The numbers of new members admitted was 600.

Annual Report of the Society of Apothecaries.

It appears by this report that during the last year 456 candidates applied for examination, of which 391 were admitted, and 65 remitted to their studies. The Court regret that they have been compelled to reject so large a number, but have felt great gratification at the increased attainments of the applicants generally. The number of medical students in London, 1834-35, was 980, and in the provincial schools 409.

Portrait of Dr. Johnson.

A portrait of Dr. James Johnson has been just published, by Mr. Higley, which is a most faithful likeness, and a beautiful illustration of the art of mezzotint.

Dr. Johnson is universally known as a journalist and an author, and few have done so much for the diffusion of medical knowledge. His literary fame has raised him to the honoured station of Physician to his Majesty, and his great ability and experience have secured him a most extensive private practice. This portrait will be placed by the side of those of other eminent characters.

Quack Testimonials.

We are happy to perceive that Professor Green has applied to the Court of Chancery for an injunction to restrain a Mr. Franks, the proprietor of a "Specific Solution," from publishing a private note, given by Mr. Green, as a testimonial in favour of the efficacy of the above-named nostrum.

We trust that other members of the profession will take a salutary lesson from this proceeding, and be more cautious in future in giving certificates in favour of secret medicines, and certain instruments. It is a disgrace to the profession to see advertisements of this kind headed with the names of our ablest physicians and surgeons.

THE

London Medical and Surgical Journal.

No. 187.

SATURDAY, AUGUST 29, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXVII.

Transmission of the Stimulus of Volition.

SUCH are some of the principal actions to which sympathy and passion or instinct are the ordinary stimuli, but which volition can, to a greater or less degree, affect or modify; but there are others, on the contrary, which are commonly excited, at least in man, by volition, and only occasionally by sympathy and passion or instinct. Of this nature are those more or less connected with respiration, by which we whistle, whisper, speak, sing, and blow wind instruments; those connected with sensation, by which we regulate the motions of the nostrils, the eye-balls and their appendages, and the external ears, so as to adapt them to their respective functions: and those comprehended more particularly under the head of voluntary motion, by which we bend in any direction, and rotate the head and spine, and by which we effect the several processes, on the one hand, of pushing, pulling, grasping, dividing, striking a blow, constructing works of art, and so forth; and, on the other, of standing, sitting, kneeling, lying, walking, leaping, running, swimming, and numerous others. All those actions, in short, which commonly originate in deliberate design, which are at first generally more or less incompetent to effect the desired end, and which become only progressively perfect, are with propriety referred to this head, since these, as already stated, are the characteristics of a rational as distinguished from an instinctive action (a). Many of these actions, however, become, even in man, occasionally instinctive, as in the case of enthusiasts, or persons under extremely strong excitement, or in whom the influence of reason has been diminished by a certain degree of fatuity or furiosity, provided always such persons have previously possessed reason sufficient to bring these actions to perfection. And, indeed, all these actions become by habit in a certain sense instinctive, the instinct perpetuating the successive improvements which volition has made, till at length volition only determines to the performance of these actions on any given occasion, and sets the requisite muscles in motion, while it is instinct which enables them to act with ease and accuracy. But, in the lower animals, a great number of these actions appear to be always and from the first instinctive. Thus, the process of hoarding up grain by the ant, and honey by the bee, that of depositing their ova, by many of these animals, in appropriate places, that of migrating by several gregarious tribes, and that of constructing its web by the spider, its cocoon by the silk-worm, its comb by the bee, its nest by the bird, and its hut by the beaver—all involve many of the actions above enumerated, but the stimulus by which they are excited is apparently, not volition, but instinct; and such actions are accordingly undertaken by them without any deliberation, conduce, in the most effectual manner, to the end in view, and are as perfectly

(a) Accordingly, in a perfectly drivelling idiot, who has never possessed sufficient talent to attain this perfection, the speech is commonly harsh and inarticulate, the eye-balls have not the degree of convergence requisite to single vision, or there is a decided squint, and the motions of the head, trunk,

and limbs are awkward and ungainly in the extreme. This furnishes sufficient evidence that all these actions are in man naturally rational and not instinctive, for all the latter actions are in general as accurately performed, by a confirmed idiot, as by other persons.

performed, the first time they are undertaken, as at any subsequent period. It would be, nevertheless, as great a mistake to believe that *all* the actions of the lower animals are instinctive, as that all those of man are rational. The ant hoards its grain as actuated by instinct; but it is as actuated by reason that it bites off the germinating part of it, if such grain have ever sprouted on its hands—it is from instinct that the spider constructs its web; but it is from reason that it chooses its time for pouncing on the prey which this web has entangled, and refrains from doing so whenever it perceives at hand an enemy to be dreaded—it is instinct which prompts the bird to build her nest; but it is reason which prompts her to choose a more secure place for doing so, if she have ever had her eggs stolen. All the former actions are impetuous, immutable, and perfect from the first—all the latter are deliberate, adapted to the occasion, and improvable by practice. It requires no experience to excel in instinctive actions; but it is experience alone which renders a cat wary and successful in secreting her kittens, or a hare or deer in eluding the arts of the huntsman; and the tricks of an old fox, both in attaining his prey, and in avoiding the snares spread for him, are so remarkable, that the term has become emblematical of a cunning fellow. Any animal which is educatable—if the expression may be allowed—is in the same degree rational; and that many of the actions of the lower animals are improvable by education, natural or artificial, is as certain as that many of those of man are not so. The actions of both have obviously a double origin; and the only difference between the two appears to be that, while the greater number of the actions of man spring in general from reason, and comparatively few from instinct, in the inferior tribes of animals the majority are instinctive, and few only in comparison are rational. Hence, while some of the analogous actions of both are excited in both by instinct, and others in both by reason, there are not a few of these analogous actions which have in man, as elsewhere observed, a very different origin from what they have in brutes. The fabric which man brings to comparative perfection only after long reflection and repeated failures, and profiting, not only by his own experience, but by that of the myriads who have gone before him, the insect, the bird, or the quadruped undertakes without deliberation, and brings to perfection, not only in its own generation, but the first time it is attempted—the sounds which man acquires the power of uttering only after months and years of observation, and fruitless efforts at imitation, the bird or the quadruped emits from the instant that its organs are sufficiently developed for the purpose, and would have done so equally well had it never heard a similar sound before. Man does these things by reason—the brute by instinct. Man is, in these respects, a free agent, and revels in his freedom, attempting much, and this infinitely diversified, but as often failing as succeeding in his attempts, and never arriving at absolute perfection in their results—the brute is in these respects a blind machine, engaging in little, and this always the same, but in its operations infallible, and in their results absolutely perfect. With respect, indeed, to the actions exercised by every form of matter, man or brute, organized or inorganic, it appears that such actions are, for the most part, more precisely adapted to the end in view, and their results more admirable, the further removed is the power by which they are severally excited from reason and volition, as exercised by the immediate instruments of these actions, and consequently the more these instruments act in blind obedience to immutable laws imposed upon them by the Creator. What action, sensible or molecular, of organized beings, can compare in accuracy of movement or harmony, and beauty of results, with the revolutions of the planets on the one hand, or the crystallization of a mineral on the other? the only power engaged in which is that of attracting and repelling; what action of the latter, excited by sympathy and passion, or instinct, can compare, in these respects, with the contractions of the heart, or the process by which the flower of the humblest plant, or the eye or ear of the lowest animal is constructed? the only or chief power engaged in which are certain direct stimuli distinct from either; and what action, lastly, excited by volition, can compare in these respects with the motions of the chest in respiration, or the formation, by the lower animals, of any of their natural fabrics? the only power engaged in which is sympathy and passion, or instinct? The most precise actions excited by volition—at any rate before such actions have become partially instinctive by habit—are but bungling imitations of the least accurate of them, and give rise—at any rate before they have been improved by long and patient cultivation—in comparison with the least admirable results of the latter, to rude and coarse performances. The being thus exercising volition is, perhaps, morally exalted in proportion as he becomes a free agent; but such volition, in its physical operations, is but a poor substitute for the powers which it affects to supersede.

Volition, as a stimulus to irritability, is not only much less extensive in its operation than sympathy and passion, or instinct, but this operation is much less constant. If life and irritation are almost synonymous terms, and if the irritation of each part of the body, at least in the higher tribes of animals, exerts by sympathy a more or less powerful influence over all the rest, it is obvious that during life this power can never be quiescent; and if the irritation of other organs be thus continually extended to the rest by sympathy, there is good reason to believe that the action of the brain is equally constantly—at least during

the waking hours—extended to the rest by passion and instinct—not indeed in any very sensible form, but uniformly and equally. But such does not appear to be the case with volition, its exercise as a stimulus to irritability taking place apparently at irregular intervals only. And it is in this way that we may perhaps explain the origin of the common error, that the so called voluntary muscles are alone liable to fatigue. All the muscles of the body, whether involuntary or voluntary, are perhaps equally liable to fatigue, provided their irritability be stimulated to a greater degree, or for a longer time than natural; but while this is never the case, at least under ordinary circumstances, with the former, the stimulus of volition acting upon the latter is always in some degree a preternatural one, and the action so induced is consequently sooner or later succeeded by exhaustion. Nor is it true, as is sometimes added to increase the marvel of the thing, that the involuntary muscles are capable of sustaining, generally speaking, a much more permanent action than the voluntary. It is common to contrast the heart, as continuing in constant action during a long life, with the muscles of the trunk and extremities, as enjoying a great deal of repose; but it is probable that the sum of repose enjoyed by the heart is, in fact, as great, or greater, than that enjoyed by many of the muscles last alluded to. For we must keep in view, that the heart is two muscles, and not only one, the auricles acting at one time, and the ventricles at another; and this circumstance, in addition to the short repose of the whole heart during each series of actions constituting its rhythm, reduces the proportion of each twenty-four hours occupied by the actual contractions of the auricles to about six, and that by the ventricles to about twelve, whereas that occupied by the contractions of many of the muscles of the trunk—of those which keep the head erect for example—is not, in general, less than sixteen, that is to say, the whole time the person is otherwise than in the recumbent posture. Nevertheless, it is not probably as determined by the relative duration of the contractions of the voluntary muscles, that they become so frequently affected with fatigue, while the involuntary muscles do not, but from the contractions of the former, as just observed, being always more or less a forced state, the stimulus of volition being, as it were, accidental and adventitious in its operation; but to this subject further allusion will be made in future.

With respect to the channel by which the direct and primary action of the brain, in which volition consists, is translated to distant parts, so as to act on them as a stimulus to their irritability, there is not the same controversy as with respect to sympathy and passion, or instinct, regarded in this capacity—it is pretty certainly the system of nerves called the proper motiferous, and the motiferous portions of those called regular, in conjunction with such of the respiratory nerves as are furnished also with motiferous filaments—but, previously to adducing the principal proofs of this fact, it is proper to say a few words respecting a peculiarity in the operation of volition in this way, as distinguishing it from that of the other indirect stimuli just mentioned. The peculiarity alluded to consists in this, that, whereas in the latter case, the direct irritation of any other organ, or the direct action of the brain is the immediate means, through the nerves, of exciting that indirect irritation constituting the obvious phenomena, in the former, the direct action of the brain appears to involve first, an intermediate action of another part of the nervous system, and it is this intermediate action which is the immediate means, as translated by the nerves, of exciting that in which voluntary motion consists. It may appear at first sight, that this is a very unnecessary addition to the complexity of a process already by no means simple; but numerous considerations seem abundantly to justify, and even to require it. Thus, in the first place, it will be evident upon reflection that volition, which implies a distinct consciousness, on the part of the being exercising it, of the end in view, is never exercised with respect immediately to any of the muscles, such muscles being excited to action, not by their possessor willing that they should act, but by his willing to effect certain movements, which movements require the action of such muscles. A man never wills, for example, that the flexor muscles of his finger should contract—he wills merely to bend his finger, and these muscles—of the very existence of which he is most probably quite ignorant—act in consequence. It is not the *muscles* then, but the *movements*, which are in any case voluntary, since it is absurd to represent any power as exerting a deliberate influence over organs altogether unthought of or unknown. It is a very different thing with respect to passion or instinct, which, whether it conduce or not to a definite end, does not imply any consciousness of that end on the part of the being exercising it, and which, therefore, may be presumed to extend its influence immediately to the muscles—however ignorant this being may be of their existence—the resulting movements being altogether unanticipated and uncared for. Both volition and passion or instinct consist in certain actions of the brain extended to other organs; but while the latter, which is without deliberate design, is transmitted immediately to the muscles to be acted on, the former, which implies such design, cannot be presumed to be so; and if it be not the action of the brain which, in this case, is so translated to the muscles, it must be that of some other part immediately connected with the brain, and involved in this particular action of that organ, but the action of which is, like that of the brain itself, in the case of passion or instinct, without any consciousness of an end in view. Again, volition, implying, as it does, a distinct consciousness of one end, cannot easily be conceived capable of exerting a simultaneous ope-

ration upon so many different muscles, as are often called into action in effecting even the simplest movement; and perhaps the totally different movements of the right hand and the left, as manifested in playing on a musical instrument, imply two general seats of action more decidedly distinct from each other, than that of mere volition can be presumed to be. And what shall we say of the seat of the power which actuates the three hundred muscles, calculated to be simultaneously in action when, like David before the Ark of the Lord, a person is dancing, singing, and playing on the harp all at the same time? Further, there is reason to believe, that volition is not only incapable of a simultaneous operation on several muscles, but that it is not in constant operation during any continued exercise of voluntary motion, such as takes place in playing a piece of music with which one is familiar, or even in continued walking; in effecting which, volition, or the primary irritation of the brain, appears to be instrumental only in setting off these motions, as it were, while it is by that of some other organ that they are perpetuated, the requisite celerity and precision in the motions of the muscles having been already acquired by habit, and having become therefore instinctive. We know, at least, that the thoughts are often constantly and intently engaged in other things, while such movements are going on without the least interruption. Another argument in favour of the presumption that, when volition acts in effecting the voluntary movements, it is only through some intermediate action, is the fact, that the most powerful act of volition is quite inert in exciting these movements when this intermediate action does not take place, whereas, without any act of volition, they are so excited by the spontaneous occurrence of such action. Of the former of these phenomena we have examples in palsy of voluntary motions alone in incubus, or common night-mare, and in trance, in which, however energetic may be the will to effect certain movements, the power of doing so is quite lost; of the latter, in palsy of sensation alone, combined with cerebral apoplexy, in somnambulism and in walking catalepsy, in which, without any volition, the movements of the so called voluntary muscles are as perfect as when consciousness is entire. Nay, it has been established by observation and experiment, as will be stated more fully presently, that the communication between the brain—the seat of volition—and the immediate source of the nerves going to the voluntary muscles may be entirely intercepted, and still these muscles be exerted to action. Nor is it only without the will, but even against the will, that the contractions of the muscles, which are usually called into action by volition alone, are frequently excited; as occurs in tetanus, epilepsy, hysteria, chorea, and all the spasmodic and convulsive diseases which are confined to muscles appertaining to the proper animal functions. It may appear indeed, that, if this be admitted as an argument in favour of the doctrine under consideration, the occurrence of angina pectoris and pertussis, of palpitation of the heart, of gastrodynia, colic, hydrophobia, and so forth, which consist of spasmodic or convulsive affections of muscles commonly excited, among many other causes, by sympathy, might with equal propriety be cited to prove that sympathy acted on such muscles, not immediately, but through the medium of a new irritation, which might take place sometimes independently of sympathy. This, however, is not the case; for while it is always from excess of either sympathy, or some other stimulus to which these involuntary muscles are naturally subservient, that these latter diseases arise, it is never by excess of volition, which is the only stimulus that the voluntary muscles, in an indirect manner, exclusively obey, that the former diseases, distinctly confined as they are to these voluntary muscles, are excited. It is clear, then, that volition is, under ordinary circumstances, only the first link in a chain consisting of three such links, since under extraordinary circumstances there still remain the two necessary to every instance of indirect and secondary irritation, which two are capable of acting, not only without the aid of the first, but even in opposition to its influence. Lastly, if the action of the brain in which volition consists operated, like that constituting passion or instinct, on the irritability of the muscles without any intermediate action, we should expect that the brain would be found to be large in all animals in proportion to the force and energy, as well of their voluntary movements and sensations, as of their instinctive movements and mental operations; whereas it is sufficiently well known that, while this correspondence is pretty well observed with respect to the two latter, this is so far from being the case with respect to the two former, that the size of the brain is within certain limits rather inversely, than directly as the force and energy of the voluntary motions and sensations, as will sufficiently appear by contrasting, in these respects, almost any one of the lower animals with man.

If, then, there be this intermediate action in every case of voluntary motion, the next question that arises is, what is the seat of it? And the answer may be tolerably decided—that it is the anterior columns of the spinal cord, whence all the nerves ministering to the motions of the reputedly voluntary muscles directly arise. This presumption, while it is quite compatible with all the facts which have just been enumerated as militating against the doctrine that it is by the immediate translation of the stimulus of volition to the muscles to be acted on, seems to be borne out by direct observation and experiment. It has been shown, as lately stated, not only by numerous cases in which a separation has occurred, from either monstrosity or disease, between the brain—the seat of volition—and the

spinal cord, or between the upper and lower portions of the latter, but also by experiments in which this connexion between the brain and either the whole or a part of the spinal cord has been artificially cut off, that the motions of the muscles supplied by nerves coming from the part of the cord below the division, which motions are naturally excited by volition, were not materially impaired, the mere action of this part excited by other means, as happens in palsy of sensation alone combined with cerebral apoplexy, in somnambulism and walking catalepsy, being still competent to produce them (*a*). And it seems hence fair to infer that as in palsy, voluntary motion alone, and in incubus, the brain and posterior columns of the spinal cord are still in action, while the anterior columns are not so, and in trance the brain without either the posterior or anterior columns, so in the former case with that of the posterior columns of the spinal cord also, but in the latter without it, in the diseases just mentioned the action of the brain is suspended, while that of the anterior columns is still maintained; and this theory is the more plausible from the circumstance that tetanus and the other spasmodic and convulsive diseases of the so-called voluntary muscles pretty certainly depend on a morbid action of this part. Further, it is quite impossible to explain why the two anterior pillars of the spinal cord should consist of grey, as well as white matter, which is not the case with the two lateral pillars, unless it be conceded that the two former are not only the channels of a power, but the seat of the action in which this power immediately consists, whereas the two latter serve only to communicate a power generated elsewhere. It has been already presumed, in speaking of the office of the ganglionic system of nerves, that the grey matter of the nervous tissue is always the source of that particular property or power which distinguishes each department of the nervous apparatus, while the white matter may be regarded as only a kind of conduits, by which this property or power is, as it were, disseminated, not indeed *per se*, but by virtue of some molecular change effected in the matter in question (*b*); and, if this be

(*a*) One case of this kind is related in the *Journal de Physiologie* for 1823, in which the power of moving the voluntary muscles, as well as the faculty of sensibility, was unimpaired in a man between the upper and lower portions of whose spinal cord there was an almost total want of continuity for six or seven inches; and some analogous cases have been since recorded. The same negative result of artificial division of the spinal cord in the lower animals was noticed long ago by Redi and Swammerdam; and it is expressly stated by Dr. Wilson Philip, as the conclusion to be drawn from his experiments, that "the division of the spinal marrow does not destroy any of the functions of either half of it, the palsy of the lower part of the body, occasioned by its division, arising from that part having its communication with the principal source of sensorial power (i. e. the seat of volition) destroyed." (*On the Vital Functions*, 1817). It is observed, likewise, by Mr. Mayo, that if the spinal cord be divided in a rabbit in the centre of the back, the hind leg still retains both the power of motion and the faculty of sensibility; (*Outlines of Physiology*, 1829); so that we must believe that the "palsy" which a few pages onwards he describes as "the uniform result" of such a division, relates only, in as far as voluntary motion is concerned, to the interception of volition. Volition may be entire, and the intermediate action which should directly excite the voluntary movements may likewise be entire, but the former does not give rise to the latter.

(*b*) An indefinite sort of surmise that the grey matter of the nervous tissue is analogous to the secreting part of a gland, as the white matter is to the ducts of such

gland, appears to have been from the earliest times entertained. Thus by Hippocrates the brain has been described as *ὡσπερ καὶ αἰετες*, while by Praxagoras the nerves were represented as performing the office of ducts; and similar notions were inculcated by Harvey, Spigel, Bartholin, and others; but it was Malpighi who attempted for the first time to demonstrate, by means of long boiling, and with the help of the microscope, the glandular structure of the grey matter of the nervous tissue, and the fibrous structure of the white, and to prove that the latter was to the early point of the former "veluti proprium vas," for the conveyance of whatever it was pleased to furnish. In these speculations Malpighi was supported by Willis, Malacarne, Vieussens, Wepfer, Bohn, Leeuwenhoek, and many others, almost down to our own times; and although the grey matter of the nervous tissue certainly does not, like truly glandular structure, secrete any thing substantial, whether "an exquisitely fine and active fluid," in the character of "nervous energy," or a proper "succus nervosus" indirectly ministering to such nervous energy, the comparison is nevertheless an impressive and instructive one. By Gall and Spurzheim the grey matter of the nervous tissue is represented rather unhappily as the matrix of the white—a position which has been since combated by Tiedemann, who has shown that in the embryo the formation of the white matter long precedes that of the grey. It is remarkable, however, that this observation is so far from controverting, that it very strongly corroborates the notion of a kind of analogy between the grey and white portions of the nervous tissue and the parenchymatous and tubular parts of a gland,

the case, as every view of the matter seems to testify, it will follow that the possession by the anterior columns of the spinal cord of grey matter is a strong collateral argument in favour of the doctrine that volition operates in exciting the action of the voluntary muscles, not directly, but only through the medium of a new power consisting in a proper simultaneous action of this part. It must not be omitted to notice, lastly, that the size of the spinal cord, taken collectively as compared with that of the brain, is, in almost all classes of animals, great in proportion to the form and energy of their voluntary motions and sensations, as compared with that of their instinctive motions and mental operations; the relative size of the spinal cord of fishes and reptiles in general being as about 1 to 2, that of birds as 1 to 3, that of quadrupeds as 1 to 4, that of the male of the human species as 1 to 24, and that of the female as 1 to 25 or 26. It is worthy of remark, likewise, that if this doctrine be admitted—that the anterior columns of the spinal cord are the seat of the intermediate stimulus to voluntary motion, which stimulus, as it is excited by that primary action of the brain in which volition as a mode of thought consists, gives rise to an irritation of a part at a distance—a very beautiful reflex analogy is maintained between this stimulus to voluntary motion and sensation, which in like manner has its seat, as will be seen in future, in the posterior columns of the spinal cord, and as it is excited by some irritation at a distance, so it gives rise to some mode of thought. Two journeys, as it were, in opposite directions, seem to be taken in the two processes; but in both the spinal cord appears to be not merely a channel of conveyance between the brain and the distant organ, but a very important means of modifying the thing conveyed (a).

the tubular part of the latter being now well known long to precede the parenchymatous part in the date of its development.

(a) Some very vague notions have been from the earliest ages afloat respecting the instrumentality of certain portions of the brain in immediately effecting voluntary motion. By Galen, as the sensiferous nerves were represented as arising from the cerebrum, so the motiferous were described as arising from the cerebellum; and the doctrine that the cerebellum therefore was immediately subservient to this process continued in vogue till the time of Willis, who, followed by Vieussens, Boerhaave, Du Hamel, and others, chose to regard the cerebrum as the immediate source of the voluntary, and the cerebellum that of the involuntary motions. Respecting the involuntary motions, however, the question has been despatched elsewhere. In more modern times, Foville, Pinel-Grandchamps, Dugès, Louston, and others, have followed Willis, in as far as they regard the cerebrum as the immediate source of voluntary motion, considering the cerebellum, on the other hand, as the source of sensation; whereas Rolando and Flourens have returned in some measure to the hypothesis of Galen, placing sensation in the cerebrum, and representing the cerebellum not perhaps as the immediate source of voluntary motion—which the latter indeed expressly refers to the corpora quadrigemina and spinal cord—but as its regulator. Among the arguments adduced in favour of regarding the cerebrum as the immediate source of voluntary motion—to say nothing of the circumstance of its direct continuity with the anterior columns of the spinal cord, whence all the nerves which minister to voluntary motion immediately arise, which is of course in favour of regarding this latter organ in that capacity—may be mentioned the facts, that a general disease of one side of the cere-

brum usually paralyzes all the voluntary muscles on the opposite side of the body—the fact of its being on the opposite side being explicable from the decussation of the fibres which takes place between the cerebrum and anterior columns of the spinal cord on a line with the corpora pyramidalia; and that a local disease of certain parts of the cerebrum, for example the thalami optici or corpora striata, paralyzes particular voluntary muscles, such as, in the former case, those chiefly of the upper, and, in the latter, those chiefly of the lower limbs. It is further remarkable that a section of one thalamus opticus or one corpus striatum appears so to act on the voluntary muscles as to cause an animal to revolve incessantly towards the injured side, while a section of both seems to have the effect of causing it to move constantly forwards. On the other hand, it has been alleged in favour of regarding the cerebellum as the immediate source of voluntary motion, that although it is less directly continuous with the anterior columns of the spinal cord than the cerebrum, yet a general disease of one side of the cerebellum as commonly paralyzes all the voluntary muscles on the same side of the body as such a disease of the cerebrum does those on the opposite side—there being between the cerebellum and spinal cord no such decussation of fibres as takes place between the cerebrum and the latter organ; that local disease of the cerebellum produces on particular voluntary muscles effects similar to those resulting from such diseases of certain parts of the cerebrum; and that as a section of certain parts of the latter seems to cause an animal either to revolve towards the injured side, or to move forwards, so a section of one of the crura of the cerebellum, or the removal vertically of a large portion of one of its hemispheres, appears to give rise to the former effect—the motion being instantly

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XI.

*Inflammation of the Buccal and Pharyngo-
Laryngean Regions—Gingivitis—Aphthæ—
Quinsy—Angina—Gangrenous Sore Throat
—Diphtheritis—Croup, &c.*

To form an idea of the importance of the

buccal and pharyngo-laryngean inflammations, you need only reflect on the organs in which they are seated, and their connexion with many of the principal nuclei of life. The velum palati, where they are frequently observed, is in close connexion with the stomach, as you may certify by producing vomiting by tickling the uvula. Nor are the sympathies of the larynx with the respiratory apparatus less evident, since cough is ordinarily produced by irritation of the glottis; there it is that we have the sensation of coughing, just as in the nose we experience sneezing. The pharynx also is in strict relation with the stomach: so soon

stopped by injuring the other side of the organ in a similar way—while the removal horizontally of a large portion of both hemispheres seems to cause an animal to move constantly, not forwards, but backwards. It appears, accordingly, that the arguments are almost equally valid, or rather equally destitute of validity, for regarding either the cerebrum or the cerebellum as the immediate source or regulator of the voluntary motions, some of them even going to prove, as observed by Magendie, that these organs are useful, not so much in moving the body as in keeping it still. With respect to the general or local diseases of the brain, followed by palsy of the voluntary muscles, unless such diseases involve also the anterior columns of the spinal cord—as is very frequently the case—they take effect probably more or less extensively only as far as they intercept volition; and with respect to the various local lesions of the brain followed by such singular effects, they prove only that the voluntary motions may be affected through the brain, not that they immediately depend upon this organ. Indeed, if this argument in favour of the doctrine in question be allowed, we must conclude that the brain is the immediate source or regulator, not only of the voluntary, but of the involuntary motions also—of that of the heart, for example, which is so easily influenced by the state of this organ. The perturbations of the brain may disturb the actions of either the voluntary or involuntary muscles—and it was indeed found, by Dr. Wilson Philip, that such perturbations produced very similar effects on both (Phil. Trans. 1815); but that organ is surely not to be regarded as the immediate source or regulator of the motions of another, which only requires of it not to interfere. And even admitting that the effects of actual physical lesions of the brain are more remarkable on the voluntary than on the involuntary muscles, is not this fact easily explicable, when we reflect on the intimate structural union between this organ and that which really is in all probability the immediate source of voluntary motion? so that while the involuntary motions are involved only sympathetically in such lesions, the

voluntary are so, not only sympathetically, but directly also. Hence we find that the nearer such lesions approach the point of union—in other words, the nearer they are to the base of the brain—the more striking these effects become. It is not improbable, also, that some of these effects may depend, not upon any direct influence exercised by the brain as the immediate source of voluntary motion, but upon mere volition, exerted in consequence of the lesions above alluded to. Thus, a section of one thalamus opticus, of one corpus striatum, or of one of the crura of the cerebellum, or a removal in the vertical direction of a large portion of one of the hemispheres of the latter, in all likelihood produces a kind of vertigo, in which the animal fancies itself forcibly urged in a direction contrary to that in which it is found to revolve, and this revolving motion is excited by the will, for the purpose of counteracting this supposed power; and in the same manner probably a section of both thalami optici, or of both corpora striata on the one hand, or a removal in the horizontal direction of a large portion of both hemispheres of the cerebellum on the other, gives rise to an impression of being violently propelled respectively backwards or forwards, and the animal voluntarily moves forwards or backwards in order to resist this imaginary impulse. A wonderful case, related by Dr. Watt (Medico-Chir. Trans. 1814), and another by Mr. Mayo (Outlines of Physiology, 1829), in which, among other singular notions, this revolving motion was more or less constantly maintained, and the Forfarshire louping ague, as it is called (Edinb. Med. and Surg. Journ. 1807), manifesting itself principally in an uncontrollable propensity at times to run straight forwards, afford beautiful illustrations of the influence of certain morbid affections of the brain upon the voluntary motions, but no more justify us in believing that it is the immediate source of such voluntary motion, than the alterations which the hand sometimes makes in the movements of a watch would justify us in the belief that it is by this hand, and not by its own spring, that such movements are immediately effected.

as one is out of order the other is diseased, and irritation is conveyed both from the pharynx to the stomach, and from the stomach to the pharynx. Add to this, that these parts are provided with lymphatic and blood-vessels, nerves, and nervous papillæ, a cellular tissue in some degree erectile, and multiplied mucous follicles. The amygdalæ possess an areolar tissue and a congeries of follicles, whose orifices open on the lacunæ of the mucous membrane. Between the two mucous folds of the velum palati there are exceedingly active muscles. All these parts are liable, even in the normal state, to numerous and sometimes violent movements from the stimulus of instinct, that is to say, from the stimulation of the viscera re-acting under the influence of certain parts of the cerebro-spinal nervous system.

You may therefore well imagine that inflammations of these parts cannot proceed in an absolute manner, and independently of the viscera; a similar relation was advanced with regard to those of the eye. Thus, that derangement of functions, that disorder of secretions, those convulsions of a certain number of organs, that obtain in irritations, commence in a more immediate and speedy manner. Thus too the inflammations of the various organs succeed and become connected with each other with greater rapidity. In these inflammations we have a preliminary instance to the consideration of others more complicated, of others wherein the deduction from the causes, from the symptoms, the mode of suffering, the progress, termination, &c. is more difficult, because the facts are multiplied, and frequently are apparently contradictory. Here a renewed and increased attention becomes necessary, in order to arrive at clear deductions; but as all minds are not equally capable of this, you will see them fix upon different ideas—ideas agreeable to the calibre of each mind; nor ought you to wonder at the discrepant opinions we meet with. Such necessarily arise whenever the elementary bases of a judgment or conviction become more complicated. In order to prevent them, as much as may be, from arising among you, I shall first of all present the simple facts to you that more particularly refer to surgery, and which require mechanical means. In this manner I shall continue, as I have hitherto done, to initiate you by the surest mode into the science of inflammations, at the same time that you will be made readily to comprehend how those, of which we proceed to speak, have become objects of so much controversy. You can then by yourselves, if you choose, try the balance, and find where reason is, and where passion.

Inflammation may appear in different forms in the parts above mentioned. It may be purely inflammatory, and so violent as to suppress all secretion, and leave only a red surface—a fact that obtains in other secretory organs, which are liable to shades

of irritation in which nothing but a sanguineous injection is observable; such a state is even seen in the skin. I lately shewed my pupils, at Val-de-Grâce, a case of scarlatina in which the skin was as red as blood; I told them I had seen even a worse case than that, a case in which not only the skin, but the subcutaneous cellular tissue, was transformed into a sanguineous tissue. You know very well that there are pneumoniæ of a purely sanguineous character. You may therefore well imagine the shade in question; it is sanguineous inflammation par excellence, and the highest degree of bucco-pharyngo-laryngean inflammations; with this we will commence. We shall then proceed to those that are less sanguineous, and end with those of a contrary character, and on which it is difficult to form a judgment—*judicium difficile*, as Hippocrates has it.

This shade tending to sanguineous inundation, is exhibited in a double form, one purely membranous, the other phlegmonous; the latter is not likely to take place every where, but is frequently observed in the tonsils and soft palate. In the latter it may be smooth, with considerable sanguineous turgescence, not only of the palate, but of the pharynx and larynx also, without any appearance of mucous secretion.

Next come some lower shades accompanied with exudation: these are numerous, and have given rise to as many different opinions. First there is the purely catarrhal shade, and of this that belonging to the common cold is the least intense; in fact, cold may produce mucous secretions in the soft palate, the tonsils, and even in the pharynx, but more commonly in the larynx and trachea. After this comes another shade approximating to the last named, in which a secretion really exists, but ordinarily of a dense, firm, coriaceous kind, and sometimes edged in by an inflammatory swelling, so as to present a depression resembling an ulceration. It may be entirely seen in the tonsils, imperfectly so in the pharynx, and is not completely ascertained until after death. Shades next appear in which the mucous secretion is less dense and coherent; these are more readily propagated than the preceding, invade the parts rapidly, and go beyond them, being seen to descend into the œsophagus, stomach, trachea, and bronchi.

In another instance the inflammation may be confined to the gums and internal cheeks, and be there exhibited in an exceedingly phlegmonous, non-secretory, and red form. In such state I have both seen and had it combined with a cerebral congestion, just as the purely inflammatory coryza spoken of is. In these parts too it presents itself with an exudation of white mucosities which coagulate and resemble clotted milk; this is the aphthous form in which the entire of the gums is red and covered with small excoriations. The secreted matter may be

tenacious and edged in on some points so as to resemble an ulcer; and on falling off it occasionally leaves an actual ulceration. In some instances it predominates on the edges of the gums, and is more or less inflammatory; still there is always a white and mucous exudation.

Besides these forms, some specific ones exist, such as the scarlet inflammation, the syphilitic and mercurial inflammations; these however we defer to the time and place when we speak of the specific phlegmasiæ which will follow the common ones; with these latter a comparison of them will be made.

The causes of these forms of inflammation are not easily ascertained, and require both time and close observation. Those of the simple and purely inflammatory buccal and pharyngo-laryngean phlegmasiæ are recognized by every one, because, as the question is confined to one or two elements, the deduction is easy, and for the same reason identical. Indeed it appears very clear that young and adult persons, living under the influence of a full and stimulating diet, may contract these—and especially the phlegmonous—inflammations, under which are ranged those called anginæ and quinsies, whenever they are exposed to cold or heat; for they are apt to appear in hot as well as cold weather, though perhaps not so frequently, in consequence of the preservative excretory action of the skin. The causes of such inflammatory consequences then admit of no doubt.

Disputes have arisen more particularly about those shades of inflammation in which there is an exudation, and this because they originate in more complex circumstances than the preceding ones, while at the same time all intellects are not equally capable of appreciating these circumstances. The shades in question are observed in children as well as adults, in the robust as well as the weak. Among the latter, such as children, women, and lymphatic subjects, they exhibit a series of degrees that renders their forms infinitely more diversified than in other conditions of age, sex, or temperament. But no such disputes exist with regard to catarrhal inflammations; when, consequent on cold, pain of the throat, hoarseness, some tumefaction and thick mucus are observed, there is no difficulty in asserting that the whole is the product of cold—it is a cold. Still a predisposition must be admitted: for should cold impress on one with an inflammatory disposition, it may produce, instead of a simple catarrhal exudation on the velum palati or pharynx, a most intense inflammation, and one of a more or less phlegmonous character. Each one has his own mode of being sick—a truth not properly comprehended, though so frequently repeated; if it were, how should we see such frequent creations of particular diseases.

When inflammation of the throat is fibrin-

nous, the pellicle dense, adherent to the gullet, visible in one part, in another not visible, there are controversies about its cause. Several authors rather laying stress on the manner in which the disease marches, than on the individual and atmospheric conditions in which it is developed, look upon it as of a most serious kind, and struck with the putrid odour of the mouth, the prostration of the powers, and the danger of suffocation, call it putrid; on the strength of this term they have gone about seeking for extraordinary causes. In other instances the inflammation having failed to produce a fibrous coat so dense, so difficult to detach, and so readily reproduced, but at the same time exhibiting an inflammatory character of a most determined obstinacy, with an ambulatory tendency and propagative disposition towards the respiratory, and even the digestive organs, and they having fixed their attention to the great alterations of the system, and the vast number of fatal terminations—doing this, they have looked upon it as the effect of some hidden condition of the atmosphere, and given it the name of malignant. Both these forms have been referred to gangrenous inflammation; nay, even the most inflammatory affections of the arch of the palate and of the larynx, have sometimes received the qualifications of gangrenous and malignant, when they are developed with great intensity. Generally speaking, whenever great danger and intensity attends a disease, people are not content with the causes that fall under the cognizance of the senses, but go out of their way to seek extraordinary and supernatural ones.

Regarding inflammations of the gums; as, in scurvy, these parts are often inflamed, inasmuch as the same cause that produces it may likewise produce stomatitis and gingivitis, and as inflammations of the same organ resemble each other fundamentally, they have been termed scorbutic even when it was easy to prove that they originated under the influence of cold or of heat, and that no constitutional tendency to scurvy existed. Indeed the latter does not only consist in a red or brown, bleeding, and more or less inflammatory congestion of the gums, but also in a certain number of other lesions that do not necessarily accompany the inflammation in question. This distinction, however, has not been made, and inflammation of the gums has almost invariably been considered as an index of scurvy and treated accordingly. When my colleague and myself arrived at Val-de-Grâce in 1814 and 1815, so dominant was this idea, that the whole of the court-yard was planted with antiscorbutic vegetables, from which tinctures and syrups were prepared, and used to stimulate the gums of the soldiers that were considered in a scorbutic state. But since we began to treat with antiphlogistics those apparently scorbutic inflammations of the mouth that break out in barracks, the sorrowful looking

plants have disappeared, and flowers now occupy their places; this is a change which, like many others, may be considered as a step in civilization.

Aphthæ that are red, spread out over the mouth, and marked with small white spots resembling minute clots of milk, evidently are referable to moist cold acting on a peculiar predisposition; and, so much is this the case, that they are prevented and cured by avoiding that cause, and taking care not to stimulate the mouth.

But the etiology of buccal and laryngo-pharyngean inflammations, as I have laid it down, is contested. More particular stress has been laid on those sorts of epidemics in which the inflammation is supersecretory and propagative; and as these appear in a great number of individuals at once, they have been said to depend on something more than the alternations of heat and cold, and some inexplicable cause, a *quid divinum*, has been supposed to produce them. Moreover, sections of them have been made, and one form only, the propagative, with non-adhesion of the fibrinous coat, has been said to be owing to an extraordinary cause, and this form, which attacks the respiratory and digestive passages, has also been said to be analogous to the gangrenous sore throat of the ancients, and of Aretæus in particular. The frightful ravages formerly made by this inflammation have been cited, and truly it was a depopulating scourge when badly treated, and at a time when science was still in a barbarous condition; it is not the only disease to which terror has given an extraordinary renown. Yet though these ideas and opinions seem to have disappeared in our times, they have nevertheless been raked up in order to maintain that the phlegmasia in question is not a shade of that with which we are well acquainted; a particular cause has been assigned to this phlegmasia, which, not being arrested in the very commencement, is propagated until it produces suffocation and death; and as, whenever there is a mucous inflammation with supersecretion, a horrible fetor prevails in the part, the chorus of the ancients has been joined in qualifying it with the name of malignant, and upholding it, when it prevails, as a *quid corruptum* pervading all nature—an error on a par with that committed with regard to gastro-enteritis, and against which I protested, I am proud to say, triumphantly, spite of the forced silence to which I was condemned by circumstances for many long years.

These diseases have likewise been said to be contagious and communicable by respiration, and experiments have been cited that indeed appear convincing that the thing may sometimes happen. But it has been maintained that the angina with easily detached mucous supersecretion—which corresponds to the gangrenous sore throat of the ancients, and now-a-days has the name of *diphtheritis*—is contracted in innumerable circum-

stances by inhaling the breath of those attacked with it; this is at least an exaggeration, for day by day medical attendants open the mouths of patients so affected, for the purpose of examining the throat, and go away without contracting diphtheritis. So also of that species of gastro-enteritis called typhus, which is likewise sometimes communicated. All this however is conceivable; at times and in places when individuals who appear to have contracted it by contagion are affected, causes exist, such as atmospheric vicissitudes, that act upon all individuals, modify those who are predisposed—young and lymphatic subjects for instance—and dispose them to contract the disease whenever any slight stimulation is added to the existing causes. This is no contagion, but an actual inflammation developing itself in consequence of a particular predisposition. For the rest this fact is not exclusively peculiar to typhus and gangrenous sore throat, but is observable in all the mucous phlegmasiæ. In fact there is not one of them, from urethritis to gastro-enteritis and dysentery, of which instances of contagion are not quoted; but what do these instances prove? that individuals predisposed and placed in the conditions in which these diseases rage epidemically, are attacked simultaneously with others, or sometimes in consequence of others. It is even possible that the halitus of a phlogosed mucous surface may inflame another mucous surface; but these are not cases of independant and absolute contagions like that of small-pox. To shew their actual existence, the disease constituting the epidemic, and which is thought to be communicated, should always resemble itself; now such is not the case; on the contrary, whenever small-pox is transmitted, it is because it is exactly reproduced in the individual that receives it—small-pox is always small-pox. True there are more or fewer inflammatory symptoms in the viscera, more or less rapidity in the progress of that disease, more or less danger, &c.; but the essential, fundamental, invariable character, the pustules, is never wanting. Such is not the fact in diphtheritis. Read M. Bretonneau's work and the authors he cites, and you will see an immense variety of epidemics, of histories of angina with tenacious concretion, commencing in the throat and velum palati; instances of croup, of intense phlegmasiæ beginning and ending in the larynx, while others were propagated; cases of gangrenous phlegmasiæ presenting all the shades, in fact, such a diversity, that no identical character exists. According to M. Bretonneau, the identity consists in a considerable tumefaction of the tonsils, accompanied with an œdematous swelling of the tissues surrounding the larynx and trachea, together with a formation of pellicles, that are detached by flakes like the lichens of a tree, and in a propagative disposition towards the pharynx, the larynx, the tra-

chea, in short, all the surfaces that the disease invades. But wherefore assign to this shade exclusively the name of gangrenous anginæ, since all the serious anginæ are liable to have it? Wherefore endeavour to shew that the exudatory anginæ that is confined to the larynx is any other than croup, and call it pseudo-croup? Wherefore limit the true croup to cases where the exudation commences in the velum palati and tonsils, and successively reaches the pharynx, the larynx, the trachea, and bronchi? Wherefore except from this denomination cases in which the exudation is only formed in the last named parts? There is something arbitrary in this. Wherefore also say that the disease always commences by the velum palati and extends downwards, whereas there are instances in which it begins in the larynx and mounts into the mouth? Everything is possible to inflammation: it proceeds in all directions: in no epidemic has it a constant direction: it goes on guided by a host of circumstances, difficult to fix upon, but not the less existent; these, the more we observe, the more we learn to attain and appreciate. In short, it has no determinate form, except in decidedly contagious diseases, such as small and cow pox; and even in these the contagious inflammation, which has its fixed form, must be distinguished from the additional inflammation, which has it not. These questions, however, are only cleared up by facts and comparisons, and you must not imagine that medicine is learned in an instant by merely didactic processes.

As regards the phlegmasiæ that are developed in the gums, and have been improperly called scorbutic, they actually exist, and are accompanied with an exudation that approximates them more or less to the preceding affections. But I do not see why they should be assimilated to the suffocative anginæ rather than to any other, for the same reason that I do see why less connexion is said to be found between them and the suffocative anginæ, which is confined to the larynx, than that which suffocates after commencing in the velum palati. Undoubtedly, the most dangerous of these inflammations is that which produces false membranes in the air passages; but no natural differences between them can be established by taking their starting point as the basis of distinction. Divisions of these inflammations may be established, taking them from the highest to the lowest degree of phlegmasia; in fact, they may present themselves in a purely sanguineous, membranous, or phlegmonous form, as also in a secretory form, accompanied with an exudation, proceeding from an irritative action fixed in the mucous follicles, and producing false membranes. In this second form subdivisions have been made: some being referred to pure and simple catarrh, others to something more intense, and different when

the exudation acquires the consistence of a thick, adherent crust, and constitutes the affection that has received the especial name of membranous anginæ (*angine couenneuse*). Some have been characterized by a much less tenacious exudation, peeling off like lichens, and more particularly by a propagative property, that sometimes causes them to extend into the respiratory and digestive passages. Finally, those have been made distinct that appear in the gums, and are accompanied with an exudation that covers the gums, and forms a white fringe at the roots of the teeth. This last shade, formerly called scorbutic gangrene, has been united, by M. Bretonneau, with the propagative lichenoid, under the name of diphtheritis. In this manner we have A, the sanguineous form, with 1, the membranous, and 2, the phlegmonous shade; B, the secretory form, with 1, simple catarrhal shade; 2, exudatory, dense, and tenacious shade (*angine couenneuse*); 3, exfoliating, or lichenoid shade (*diphtheritis*), with which is connected the scorbutic phlegmasia of the gums, and epidemic croup.

According to a new theory of these inflammations, the name of croup has been denied to that which is confined to the internal surface of the larynx, and produces false membranes; and it has been proposed, to give it only to the secretory inflammation of that organ, consequent on pellicular inflammations of the mouth and pharynx. To the former of these aphthæ have been approximated, and considered as an inflammatory affection of the mouth, not primary, but dependant on an internal influence; consequently all connexion between them and diphtheritis, between them and scorbutic gangrene, is rejected. This diphtheritis has been assimilated to the so called malignant or gangrenous anginæ of the ancients, the model of which was given by *Aræteus*; and its author has considered as appertaining to it, on one hand, the croup, such as he thought it to be; and, on the other, the scorbutic phlegmasia of the mouth, whilst he has separated from it the mucous concretion from simple catarrh, as well as the more cohesive one, in order to group them with an imaginary stridulous anginæ, or false croup, described by certain authors, and with the asthma of *Millar*.

Of the causes, it has been said that they have been divided into those which produced ordinary inflammation, and those producing diphtheritis; those of the latter being specific, hidden, inaccessible. Whenever it has been difficult to fix on a directly demonstrable cause, another has been sought for by deduction—deduction, that rock upon which almost all the ancients split, and which very many of our modern medical men are unable to avoid. Of this we have an instance, in the history of the dis-

ease now under consideration. The modern epidemics of it that are quoted, and which are to be found in M. Bretonneau's work, no where exhibit the proof of a specific cause, and comprehend very diverse affections, so as to render it impossible to find an uniform epidemic form in them, and consequently to attribute them to a contagion. This work has been highly praised, and, no doubt, with reason; but, as it is not free from imperfections, and as, moreover, it is not proper that you should receive ready-made verdicts from any one—I shall take the liberty of criticising it, if not in detail, at least so as that you shall read it with advantage.

Diphtheritis, an imaginary entity, founded on the approximation of three particular shades of exudatory phlegmasiæ, to the exclusion—God knows wherefore—of other exudatory shades, has been assimilated to the malignant gangrenous angina of Areteus. Applying to Areteus we find, that he does not only make mention of a simple phlegmasia of the gullet, but of a very extensive affection developed together with symptoms of gastro-enteritis, and soon after accompanied with an affection of the throat; in short, a species of typhus, with a predominance of guttural phlegmasia. If we next consult the other epidemists, they tell us pretty nearly the same thing: some of them, however, give the name of gangrenous sore throat to certain phlegmasiæ of the larynx, that have never exhibited any mucous excretion of the mouth; of these authors the majority have seen the affection commence with a febrile state, of several days' duration. In M. Bretonneau's interesting work mention is also made of cases in which the fever existed previous to the formation of crusts. Now what do these days of antecedent fever, in which no inflammation of the throat exists, mean? There must be a cause for this fever; if it be not in the throat, it is elsewhere: look to the functions, see if there be not bronchitis, pneumonia, gastro-enteritis, cerebral congestion, rheumatism, &c., and you will finally discover the starting point. But nothing is proved with regard to the supposed disease, when it is affirmed, that three or four days of fever are necessary before it is characterized. It is not thus that physiological physicians express themselves; they merely say, that the cause of this fever is a gastro-enteritis, such as it is observed in low and moist places, among cold and moist air, miasms, &c., influences which act on all the mucous membranes, but especially on the throat; and they add, that if this gastro-enteritis is stayed in its commencement, suffocation is prevented. In support of these assertions they bring numerous facts, but no attention is paid to those facts; is mention made of gastro-enteritis, people seem to be offended at the

term, and shrug their shoulders as if to signify that they are labouring under some vision or hallucination. On dissection, the victims of this gastro-enteritis exhibit traces of it, as might be expected. But others begin by supposing, that these traces do not exist; they open the throat, they search in the lungs, causes of compression are found in the trachea, or on the tonsils—the lungs may be even somewhat indurated; they declare that the patient died of these lesions. True, they agree, after venturing to examine the digestive canal, that some portion of it was red, softened, pulpy, and exuded blood, or bloody serosity; but, as they had given calomel internally, and were, moreover, certain that calomel is a strong poison that kills dogs, they say that these disorders indicate a mercurial cachexy of the digestive canal, instead of recognising this inflammation as the primary basis of the disease, and the effect of the treatment. Such are the facts on which they proceed, when they go to show the seat and nature of diphtheritis!

When they * come to the treatment, they begin by denying the good effects of sanguineous emissions:—because they have employed them? not at all. To prove their inutility they quote an ill digested case, in which they have been used at too late a period, after the phlegmasia had invaded several mucous membranes over a great extent: but in this case nothing succeeded, not even the specifics, whose success they are so fond of lauding. They even insult the reader by quoting three or four cases in which no bleedings were made, to prove that bleedings are of no use! Calomel, calomel exclusively, is cried up for its power of arresting the progress of diphtheritic secretion in the bronchi and digestive canal. Subsequently, after giving a few instances, they refute themselves in a second or third treatise, by saying that calomel is a poison that causes dogs to die in a cachectic state. Fumigations are lauded, because they imagine the disease to have commenced in the tonsils, whereas it appeared in another point, and is already degenerated on its arrival there. The disease making rapid progress during these fumigations, they give them up; and next they administer abundance of stimulants internally, at the same time that they cauterize the tonsils with muriatic acid, until at length, as the patients are dying, it is impossible to say whether their death is owing to the intensity of the disease, to the cauterization, to the mercury, or to the fumigations, so utter is the confusion. Alum,

* The reader will not forget that M. Broussais is all this time criticising M. Bretonneau's work; every translator of French will perceive my motive for rendering the "on" of that language by "they;" it is a polite expression which we might do well to introduce.—J. M. G.

an old remedy, is then substituted for muriatic acid, this being considered too active; but this alum has scarcely a favourable case to support it; besides, what shall we say of the action of a substance given simultaneously with stimulants whose effect is to complicate or neutralize its own powers! The mortality of the epidemics related by authors they consider as the result of defective local treatment, and in the majority of instances in which they have treated patients by local means they have failed; but they never dream of attributing this mortality to the ignorance of the ancients, or to their own ignorance of the phenomenon of inflammation. For this vast and important phenomenon they wish to substitute some sort of entity; yet it is this which, neglected and misunderstood as it has been, has produced those depopulating plagues that raged in times past, and would not have been so murderous had inflammation, instead of being allowed to go unmolested or unprovoked, been arrested. Now-a-days, with the physiological doctrine, they could cause no such disasters, nor carry off a third of the human race; in fact, have not the diminutive lights borrowed from this doctrine, and which have penetrated the regions of the North, latterly prevented the cholera from making the horrid strides effected by former epidemics? Doubtless, with greater attention, it would have done so still more effectually; and so it would be with diphtheritis, were people willing to make the necessary inquiries concerning the local causes of epidemics; but they content themselves with stating a few isolated and obscure facts of contagion, which are contradicted by others and more numerous ones of non-contagion, and from them they deduce the existence of a mysterious principle that generates the disease—a sorry deduction, evidencing the self-conceit of man, who prefers to *wander* in the false paths that are open to him rather than be *led* into the true! As to their treatment of diphtheritis, as it is nothing more than a mixture of stimulants, that act in different ways and in a confused manner, I can understand nothing of it, and really know not what to think about it. Indeed, how is it possible to comprehend men who proceed without method, who transform diseases so as to render them unintelligible, who create artificial ones, and are unable to distinguish the one from the other, the good from the evil they have enacted? For my part, I shall never agree with such; as soon as I see inflammation, I try to crush it in its cradle; they, on the contrary, cherish it. I except, however, a disease which they have thus fomented in its origin, and which is presented to me in a deformed state; all descriptions of that kind are facts, I allow, but not such as nature offers them and such as we are in the habit of meeting them.

Do they compare croup with diphtheritis, equally incomplete descriptions are given,

and the faults in deduction are equally numerous. Croup is regarded as forming part of the disease; but how and when? this they do not state. They only are strenuous in comparing the concretions of the malignant angina of the ancients and those of scorbutic gangrene with those of croup, and they thence deduce characters of an identity that by no means ensue; in fact, the concretions have not twice together the same cohesion nor the same thickness, these qualities being dependant on the inflammatory movement, on the manner in which it acts, on the individual dispositions, on the peculiar condition of the mucous follicles, &c. Though cases alone are cited, in which the excretion of the membranes resembles lichens, others might be quoted in which it is hard and thick. What shall we say of a theory founded on such distinctions, and in which the mode of development of croup is made altogether subordinate to the mode of development of the pretended diphtheritic inflammation? This disease is ordinarily allowed to go on in order to wait for its characteristics: the patient experiences three or four days of fever, during which nothing is done: a sore throat appears: some lichenoid mucous efflorescences supervene on the tonsils, and an œdematous swelling of the throat. Arrest these symptoms, the disease stays there, and there is no fear of croup; but if it be not arrested the mucous excretion begins to spread towards the larynx, and the croupy symptoms then come on. But wherefore insist upon looking to this consecutive croup only to make it an essential croup? When it exists it must be proved—so; we deny no facts, but the deductions from them, such a consecutive croup *may* exist—there is no difficulty in admitting it, but is that any reason why, in other circumstances, during the same epidemic, perhaps in the same house, a person may not begin to have a hoarseness without having any previous fever, that he may not cough and have a râle, that he may not expectorate a mucous pellicle and shortly be in the agonies of asphyxia? Is that any reason for not giving such an affection a distinct rank? Wherefore consider it as a slight disorder scarcely worthy of notice? Wherefore does it not merit the attention of a nosologist as much as any other affection? Wherefore, in short, look upon it as a false croup, and only consider *that* the true one which occurs when a great number of the patients have been affected in the abdomen and chest? Moreover, in leaning upon authors, all the facts they give should be borne in mind. Now, Aretæus, Huxham, and several others, have seen this disease commence by the gastric apparatus, and though they treated of it in a manner anything but rational, they bore witness to the advantages derivable from blood-letting and leeches—a circumstance that should not have been—as it was—neglected.

DISEASES OF THE GENITO-URINARY ORGANS.

(Continued from p. 128.)

In the treatment of permanent stricture of the urethra, two great classes of agents have been employed—dilatation and destruction.

In the earlier periods of the history of surgery, we know of only one mode of treatment, and that only because straight metallic sounds have been found in Herculeanum, and we must therefore presume that they were employed—and because we have representations of such instruments in Arab authors.

After this period, the practice of the art in this particular appears to have relapsed into much of the barbarism by which, in the middle ages, society was characterised. During these times, the opinion commonly established was, that “stricture” was occasioned by the existence of “carnosities” within the canal, and that these could only be destroyed by escharotics, which were to be brought into contact with the diseased structure, by means of extremely rude instruments, which afforded no protection to the healthy portion of the canal.

During the same period, cutting instruments appear to have been invented for a similar purpose, and they were, it is said, employed upon the “sacred” person of Henry the Fourth of France.

Up to this time we have seen that three several modes of treating stricture had been employed, dilatation, cauterization, and cutting instruments.

The sixteenth century introduced considerable improvement into the manufacture of bougies, and their sale became sources of wealth and celebrity to many persons; but the other two modes of treatment appear to have fallen into disuse, in consequence of the mischief they so frequently occasioned.

In place of the rude escharotics we have mentioned, we find, in the next century, a substitute in the medicated bougies of Darian, the fame of which was long celebrated throughout Europe; and they procured for him, it is said, 60,000 francs per annum.

Little further change appears to have been introduced into the treatment until the time of John Hunter, who first responded to the necessity of affording protection to the healthy portion of the canal during the introduction of caustic, and substituted for the rude escharotics of former times, the lunar caustic. At a later period, he appears to have become bolder, for he dispensed with the canula, and used bougies armed at their point with the lunar caustic.

The same treatment was performed with success by Sir E. Home.

For the nitrate of silver, Mr. Whately substituted the caustic potash, which possessed two serious objections, that of being ex-

trremely deliquescent and therefore likely to injure the healthy portion of the canal, and that of increasing, in many cases, the irritability of the canal, while the nitrate exercised a sedative influence.

Great as the merits of Hunter unquestionably are—if any attach to the invention of the armed bougie, they clearly do not belong to him.

The method practised by Alphonso Ferri, in 1550, was to attempt the cure by bougies; if they failed, he introduced into the canal a hollow bougie, and through that a sharp pointed stiletto, with which he penetrated through the stricture, but when both these means failed, he applied caustic fixed to the end of a bougie; this caustic was not, it is true, either the caustic potash or the nitrate of silver, for these were then unknown, but red precipitate, orpiment, or verdigris, incorporated with some kind of mucilage.

At this moment, we have still three methods of treating the disease, bougies possessing, we believe, all the improvement of which they are susceptible—caustic, carefully guarded by instruments, which are modifications of Lallemand and Phillips’—of that which was invented by Ducamp; and we have cutting instruments by Physick, Dorsay, Despiney, Stafford, and others, modifications of which—for want of anterior ownership—we must refer to Ferri; the consecutive use of bougies, we must refer to Mayenne, who employed them on Henry the Fourth of France, in 1603, after the use of the cutting instrument.

Having enumerated the methods of treatment which have been employed, and the modifications to which, from time to time, they have been subjected, we have next to consider the most important part of our subject—what is the treatment which ought to be employed, in those cases of stricture which are dependent upon the existence within the canal of indurated masses of matter, and to which we apply the term *permanent*?

Happily, we live in times when we have sufficient experience to enable us to express an unprejudiced opinion with regard to the value of dilatation.

We have no difficulty in stating our belief, that only a very few cases of stricture are completely beyond the reach of relief by dilatating bodies, but we are at the same time bound to say, that only a very small number of cases can be cured by such agency. The reason of this is obvious, but we do not recollect to have seen it so clearly stated as in the work of Mr. Phillips, to which we have already alluded. “This disease of the mucous membrane appears to be produced by the distention of the areola of the tissue by concrete albuminous matter.”

“In the progress of induration (from the deposition of new matter, and from the consequent increase of density) an obstacle gradually presents itself to the free ingress of

fluids into the organ, and the indurated tissue then loses more or less of its vitality." "If the change produced by induration be accompanied by what I have presumed it is, a decreased supply of blood, and a consequent less energy of action than was possessed by the tissue in its natural state, and if, by the same means, there be obliteration of the cells of the tissue, and if it be of long standing, we can hope to remove it only by mechanical or chemical destruction of the tissue."

Theoretically, then, we should not expect to remove such a disease by bougies, because absorption is scarcely possible; practically, we have undeniable evidence in the experience of all men who have extensively employed the agent, that old standing disease of this kind is only relieved for a time: that the interval between the periods when it is necessary, even through the whole of life, to introduce the dilating body, rarely exceeds one or two months.

The length of the interval is to some extent dependent upon the mode in which the dilatation is practised—if it be done very rapidly, the disease will soon re-appear; if it be done very gradually, the interval is considerably extended.

We have lately had occasion to become acquainted with the method of dilatation employed by Mr. Phillips, and if subsequent experience shall confirm that which has been already obtained, we have no hesitation in saying that a vast improvement will have been introduced in this mode of treating stricture.

The principle is never to use an instrument which will not readily pass through the stricture, and never to employ a yielding substance. By this means the wedge system is not employed, and if the dilatation be effected at all, it must be by lessening the bulk of the induration.

The instrument (a flexible metallic sound) remains in the urethra on an average at least two hours; the time must, however, vary with the circumstances of the case.

He does not state that in all cases the cure is complete, but that the interval is always greatly extended. We happen ourselves to know three or four cases where from four to six months have elapsed without any apparent diminution of the stream; and of those, two were very advanced cases.

We, therefore, feel ourselves called upon to urge the importance of this treatment on the profession generally, and upon those whose opportunities of treating these diseases are frequent.

We can scarcely expect that any modification will render the mode of applying caustic more harmless than those at present employed, of which we have already spoken. So far, therefore, as the protection of the canal is concerned, the system appears unobjectionable. So far as the principle of

destroying the indurated matter is concerned, no more comment is necessary.

The instrument commonly employed is the armed bougie, to which we have serious objections: first, because too frequently the healthy mucous membrane is injured by it, in its passage towards the stricture; and next, because, even under the most favourable circumstances, until the whole of the contracted matter is destroyed, it is very difficult to ascertain whether the instrument have taken a right direction. This matter is frequently so considerable, that many weeks are passed before the necessary destruction is effected.

These two objections to the treatment by the armed bougie, are avoided by the method of application pursued by Lallemand and Phillips; the portions of canal in front of the stricture is protected, and the application of caustic is made upon the interior of the stricture; so that the moment the eschar is thrown off, the stream of water is by so much increased, the patient's confidence raised, and the medical man assured that the instrument has been correctly directed.

It remains for us to inquire, whether there be any objection to the use of caustic when judiciously applied. Our own feeling is, that there is often much difficulty in preventing consecutive contraction; we can scarcely conceive that a considerable destruction of tissue can occur, without producing a tendency to contraction. Our own experience has convinced us that this tendency is strong, but our conviction is, that, with care, it may be overcome.

We have under our observation such cases, and there is a considerable number of similar well authenticated cases upon record.

We find that this is the impression of other medical men, who are frequently accustomed to employ caustics.

It was suggested to us by Mr. Phillips, that this, the most serious inconvenience attending the use of caustic, might be avoided in the following manner:—by applying only a small quantity of the remedy upon the membrane; that the stimulus thus produced disposed the absorbents to act; that this action is kept up by the presence of such a flexible metallic instrument as would easily pass, and which is permitted to remain in the canal one, two, or more hours daily. He stated further, and certainly the analogy of similar applications upon the mucous membrane of the mouth would appear to confirm the justice of his opinion, that, after such a use of the caustic, there was no tendency to cicatrix—no disposition to consecutive contraction.

What then, if any, are the advantages of caustic over dilatation? In a few words, we apprehend them to be the following:—that caustic is applicable in many cases

where, from extreme irritability, dilating instruments cannot be used; that the treatment does not occupy so long a time; and, that when properly used, the disease is permanently cured. There remains for consideration yet one method of treating stricture, it is by cutting instruments; and we confess we do look with considerable abhorrence at this mode of treatment. We believe that it is now very rarely employed; and we do not think that any modification of a pointed cutting instrument could justify the resurrection of that system.

We speak thus decidedly, because we have witnessed its disastrous effects in this and other countries.

If the objections to it be of such a serious nature, what are its pretended recommendations?—None. In those strictures the orifices of which are too small to admit a bougie, room is made for it by means of the instrument; and in cases of retention, if there were no better mode, we might hold that its employment was justified, because, too, we have a great horror of forced catheterism, and because puncture of the bladder is not favourably regarded by the profession but, happily, these are not the only modes of relieving such a state. We have never seen a case of retention which was not susceptible of relief, either by the remedies usually employed in such cases, or by the following method:—introduce a canula into the urethra, and bring it into contact with the stricture, adapt to it the pipe of an elastic gum bottle filled with warm olive oil, apply a sufficient quantity of force, a portion of the oil will pass, and urine may then be expelled. Is it applicable to extremely narrow strictures, those, in fact, which will not admit the smallest size bougie, but which do not occasion retention? We again say no; for we have scarcely ever known a stricture which would resist the steady pressure of a bougie when kept in contact for two or three hours. Is it a method with which, putting out of the question its inconveniences, strictures may be cured? Decidedly not—it does not destroy the induration—it does not stimulate it to any extent, at best it can only open a way for the bougie.

We are, therefore, entitled to state that permanent stricture can rarely be cured by means of dilatation only; that, with care, they may be commonly cured by means of caustic, employed in the way we have described—and that the application of the cutting instruments, now used in this and other countries, is not only dangerous, but as near as may be, useless.

Foreign Medicine.

Present State of the Medico-Legal Doctrines concerning Insanity in Germany. By M. Taufflieb.

IN this essay my object is to lay down the doctrines and facts that are calculated to solve a certain number of medico legal questions that are at this time the subject of scientific discussions in Germany. These questions refer to monomania, mania, defective intellect, loss of hearing and speech, drunkenness, somnambulism, and some events of the puerpural state. And first, of

Monomania.—Since the time when the publications of Pinel, Esquirol, and Georget threw light on the various kinds of mental alienation, and particularly monomania, the German state-physicians have been actively engaged in comparing the facts observed in their own country with those advanced by the French authors, and the consequence has been that disgraceful prejudices have disappeared under the influence of which many unfortunate lunatics were formerly punished when they ought rather to have been the objects of medical treatment: fortunately no such exhibitions are now seen in Germany.

The partial mania designated *monomania* by M. Esquirol, may exist with or without lesion of the intellect; the numerous facts published in later times allow no room for doubting the fact. M. Marc proposes to term the former *rational monomania* (*monomanie raisonnée*), and the latter *instinctive monomania*. This distinction is now-a-days admitted in Germany by Clarus*, Hoffbauer†, Masius‡, Haindorf§, Grohmann||, Conradi¶, Reil**, Wildberg††, Schulge‡‡, Heinroth§§, and indeed by all the German medical jurists.

* Henke's Journal für die Staatsarzneikunde, 1824.

† *Médecine légale relative aux Aliénés.*

‡ *Handbuch der gerichtl. Arzneiw.* 1823.

§ *Versuch einer Pathologie und Therapie der Geistes Krankheiten.*

|| *Nasse's Zeitschrift*, 1825.

¶ *Commentatio de mania sine delirio*, Göttingen, 1827.

** *Rhapsodia über die Geisteszerüttung.*

†† *Lehrbuch der gerichtl. Arzneiw.* 1824.

‡‡ *Psychische Antropologie.*

§§ *System der Psychische-gerichtl. Médécine*, 1825.

Henke, who has hitherto denied the existence of an instinctive monomania in its absolute meaning, admits all the facts advanced by authors in proof of a specific lesion of the will; he acknowledges that the subjects of the observations have not acted with liberty, and could not be responsible for their actions: "but," says he, "we are only to behold in this anormal and morbid condition of the affective faculties and the will, the starting point of the disturbance of the intellectual functions during the time of their action, a disturbance that is the only excuse for the violent proceedings of the unfortunate beings in question. The distinctive point of the moral being, man, from the brute, is the enjoyment of a degree of reason that renders him capable of regulating and constraining his instinctive impulses and the depraved desires that may light up in him: so long as this reason is not obliterated or altered, man is responsible for his actions, however violent may be the tendency that drives him to the commission of a criminal act. In seeing men of mild temper, of irreproachable, and even virtuous conduct, urged, in spite of themselves, to the most extraordinary acts of violence, for instance, make murderous attempts on those whom they most love, it is impossible to deny that at the time of the act, at least, some disturbance of their intellectual functions must have obtained, although these patients may have appeared, immediately before and after the act, to be in possession of their entire reasoning powers." In favour of this opinion, Henke quotes the authority and experience of M. Esquirol, who, he says, refers the mania without delirium of Pinel to monomania, that is, to a partial delirium produced by a predominant and exclusive idea. But he evidently mistakes the tendency of the latter author's words, who says that "monomania exhibits two well distinguished forms; in one case the murder is induced by a deep but delirious conviction, by the exaltation of the wandering imagination, by false reasoning, or by the passions in a state of delirium; in the other case, the homicidal monomania presents no appreciable alteration of the intellect, or the affections; the patient is entirely drawn on by a blind instinct, by an idea, by an indefinable something that leads him to kill.

M. Amelung, who appears to have fully adopted Henke's idea, regards even the act committed in the majority of instances, of instinctive monomania, as a proof of insanity. He quotes a case in which a lady was frequently tormented by a horrible desire to throw her child through the window, and on this account never dared to approach a window for fear of yielding to her homicidal propensity. He asks, whether such a desire in a mother, who tenderly loved her child, does not suppose an actual aberration of the intellectual functions*.

M. Hartmann, whose opinion seems somewhat to resemble the above, conceives of instinctive monomania, in the following manner:—In mania, without delirium, he says it is not deceptive dreaming that leads the mind to insane acts, but morbid sensations, dependant on an alteration of the general sensibility that violently take possession of the mind, absorb all its attention, prevent its reflecting on other subjects, and in this manner, without disordering the reason, nevertheless control its activity during a certain portion of time. The outbreaks of fury that sometimes accompany this state, are in part the result of extraordinary efforts, made by the mind, to rid itself of an insupportable sensation, and in part are owing to a super-activity of the determining faculties—an activity that strives to find an outlet in acts of violence†.

The divergence of the opinions above quoted, it will be readily seen, do not go to the root of the medico-legal question of monomania: we have to deal only with a psychological distinction, having reference to the explanation of a series of well ascertained and universally admitted facts. *Are the will and the affective faculties capable of being disordered, so as to induce immediately of themselves, or mediately by a temporary disturbance of the reasoning power, the abolition of moral liberty?* Considered in its whole latitude, the question is solved in the affirmative by all the German medical jurists; and it is wholly on this question that the modern medico-legal doctrine, concerning instinctive monomania, rests. It will be allowed, that the essential practical point is to admit that moral liberty may be destroyed, not only by a primitive abolition of the intellectual functions, as evidenced

* Henke's Journal, 1829, † Ibid.

by extravagant ideas and actions, but also by a specific lesion of the affective faculties in men who otherwise enjoy the integrity of their reasoning powers. Besides, who can assert that reason in such shall remain altogether unhurt in the midst of a general anguish; at the time; for instance, of an action, the idea of which alone suffices to distract, to overthrow the whole range of the moral powers.

(To be continued.)

—o—

PETITION OF THE LICENTIATES AGAINST
THE COLLEGE OF PHYSICIANS.

[Press of matter prevented us last week from inserting the following document, the substance of which formed the topic in our last leader. The petition might have been signed by at least 200 physicians, but this was considered unnecessary.]

The Petition from the Committee of Associated Licentiates, presented by Henry Warburton, Esq. M. P., August 17th, 1835.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland in Parliament assembled. The petition of the undersigned physicians, representing the interests of a large portion of those practising in London, humbly sheweth,

That certain *bye-laws*, recently made by the *Royal College of Physicians*, relative to the general management of that body, and more particularly to the admission of the licentiates into the fellowship, are fraught with injustice towards the majority of physicians practising in London, and tend still further to injure and degrade the order of licentiates, and to perpetuate the grievances which have so long existed—and which *bye laws*, your petitioners submit, are illegal.

One of the *bye-laws* enacts that a council of twelve fellows shall be chosen, on whom is to devolve some of the most important duties of the corporation; for instance, the nomination of censors, and of licentiates for the fellowship, is exclusively to originate with them, afterwards to be submitted to the ballot of the commonalty.

Your petitioners respectfully submit that, the mode of keeping up the succession of this council is framed on a close and narrow system of monopoly and exclusion, exhibiting some of the worst features of a close corporation; and that the power granted to the council of determining the number and the individuals among the licentiates to be proposed is, in the highest degree, objectionable; that it is open to personal and to party prejudice; that it will lead to the worst species of favouritism, by giving an undue influence to the fellows composing the council; and that it will tend to produce servility and moral degradation.

Your petitioners beg leave to represent, that inasmuch as no corporation can make

bye-laws, which limit or control the powers granted by the charter to its individual members, the *bye-law* of the College, which deposes exclusively to the council the power of determining the number, and the individuals among the licentiates to be ballotted for by the fellows, vitiates the just right of every fellow to propose or vote for any, or every, licentiate into the fellowship, whom he may think proper: thus, also, if the said council do not propose or make any nomination, no fellow can ballot, since no licentiate can be proposed for the fellowship except by the council.

Therefore it appears to your petitioners, that the right of each individual corporator to keep up the succession in the terms of the charter, is in fact destroyed, and consequently this *bye-law* is illegal.

The charter ordains that the censors are to be elected by the president and College, or commonalty; but in direct violation of this, the *bye-laws* deposes to the aforesaid council, the power of nominating the censors, and the fellows are thus constrained to ballot exclusively for those so nominated; consequently the right of the corporators to elect the censors is illegally infringed upon.

Your petitioners beg leave to state, that they view with surprise and regret, this puny attempt at self-reform, made by the College of Physicians—in the face of the great mass of evidence produced before the committee of your honourable House, which so completely demonstrates all the grievances complained of, and substantiates every allegation contained in the petitions presented to both Houses of parliament, in the two last sessions, by your petitioners and others.

Your petitioners, therefore, earnestly pray your honourable House to interpose its influence, in order that the said *bye-laws*, recently enacted by the College of Physicians, may not receive the sanction of his Majesty's Commissioners of the Court of Chancery, and the Lords Chief Justices of the Courts of King's Bench and Common Pleas; and that your honourable House will grant such other relief as in its wisdom it may think fit.

And your petitioners, &c.

John Sims, 37, Cavendish Square, *Chairman of the Committee.*

N. Arnott, 38, Bedford Square; James Clark, 21, George Street, Hanover Square; James Copeland, 1, Bulstrode Street; C. Holland, 16, Queen Street, May Fair; James C. Somerville, 5, Saville Row; James Bartlet, 10, Bentinck Street; George G. Sigmond, 34, Dover Street; William Stroud, 20, Great Coram Street; Thomas Hodgkin, 20, Finsbury Circus; Southwood Smith, 36, New Broad Street; Theodore Gordon, 5, Duchess Street, Portland Place; Marshall Hall, 14, Manchester Square; D. Barry, 26, Welbank Street.—*Members of the Committee.*

—o—

Reviews.

A Treatise on Pulmonary Consumption; comprehending an Inquiry into the Causes, Nature, Prevention, and Treatment of Tuberculous and Scrofulous Diseases in general.
By James Clark, M.D. F.R.S. 8vo.
pp. 399. London: Sherwood & Co.

(Continued from page 53.)

CHAP. 6 treats of diseases which attend and complicate consumption.

As the disposition to the formation of tubercles is not confined to the lungs, but exists as a morbid state of the general constitution, we may expect to find other organs tuberculated though the lungs are generally soonest and most extensively affected.

"There are also other morbid lesions, particularly of the mucous membranes, which complicate, and are so intimately connected with, consumption, as apparently to form constituent parts of it; and it is worthy of remark, that some of these secondary affections are occasionally so prominent as to mask the primary and most important affection, which is only made manifest by examination after death. In some cases, for example, the diarrhoea is so severe, and assumes so much the character of chronic dysentery, as for a time to throw into the back-ground the less evident symptoms of pulmonary phthisis: but, on examination after death, although the intestines are found ulcerated and otherwise diseased, the lungs are in general so much more affected, as to leave no doubt that they were the primary seat of disease. Again, disease of the larynx occasionally produces such marked symptoms as to be taken for the principal affection, even when the lungs are extensively tuberculous."

The most important complications of phthisis are—

Diseases of the Organs of Respiration.—The mucous membrane of the air-passages is generally diseased to a greater or less extent. *Ulceration of the epiglottis* usually occurs late in the disease, and, when slight, is not indicated by any particular symptoms; the larynx, however, is commonly affected in a similar manner. The lingual surface of the epiglottis is rarely ulcerated; Louis found it so only in one case, in which the symptoms were pain in the region of the os hyoides, and difficult deglutition, fluids being frequently ejected through the nostrils in the attempt to swallow them; the last symptom is considered characteristic of inflamed epiglottis, but does not always at-

tend it. In some cases the epiglottis is cedematous. *Ulceration of the larynx* is a frequent complication. It usually occurs at an advanced period; occasionally, however, symptoms indicative of it appear before those of the pulmonary affection are very evident. The symptoms of ulceration in the larynx vary according to its site, and generally keep pace with its extension; they are sometimes so prominent as to lead to the belief that the larynx is the chief seat of the disease; but our author agrees with Andral in thinking that the disease termed laryngeal phthisis is in most cases pulmonary consumption masked by an unusual predominance of the laryngeal affection, the emaciation, hectic fever, and other important symptoms being still referable to the pulmonary disorder. Ulceration of the larynx is almost constantly attended with hoarseness, and sometimes with aphonia; there is generally pain in the site of the os hyoides, which is often severe when the ulcerations are deep; cough is also present, accompanied with a peculiar harsh, grating sound, or sometimes one resembling a kind of whistle. *Ulcerations of the trachea* do not give rise to any particular symptoms: Louis has found no characteristic indications of their existence even when they are severe and numerous. Ulcerations of the trachea are found almost exclusively in phthisical subjects: they are frequently confined to one side, which, according to Andral, invariably corresponds with the diseased lung, or with that which is most so when both are affected. In the larger bronchial tubes ulcerations are much less frequent than in the larynx and trachea; in the minute ramifications of the air tubes, however, they are, according to Dr. Carswell, extremely common. Louis found ulceration of the epiglottis and larynx in *one-fifth*, and of the trachea in *one-third*, of the cases of phthisis he examined, whereas he found it only in one out of a hundred and twenty-two cases of other chronic diseases—establishing a close relation between these lesions and pulmonary consumption: he also found that such ulcerations occur more frequently in men than in women, in the proportion of two to one. The *affections of the pleura* attendant on phthisis, consist in the effusion of coagulable lymph, causing ad-

hesions between the pleura pulmonalis and costalis, and perforation of the pleura, with consequent escape of air and purulent matter into its cavity.

"Adhesions almost constantly accompany the formation of tubercles, and their extent corresponds with that of the tuberculous disease. In only one case of one hundred and thirteen examined by Louis, both lungs were free from adhesions; the right was exempt in eight cases, and the left in seven: in twenty-eight they were small and easily broken down, and the caverns were either small or wanting. In the other two-thirds, they were dense and firm, and accompanied with large excavations. In two cases, where the lungs contained but two excavations, the adhesions existed only over the parts corresponding with them.

"These facts show, in the clearest and most satisfactory manner, the intimate relation of tubercles and adhesions as cause and effect. From the adhesions being often confined to the spot corresponding with the tuberculous excavations, and from the absence of all appreciable signs of inflammation during their formation, it is probable that the lymph of which they are composed is frequently poured out from the vessels with little or no irritative action. They sometimes present the appearance of semi-cartilaginous crusts, covering the summit of the lungs, and in other instances they are changed into true tuberculous matter. If the ulcerative process goes on in the walls of the caverns till the intervening pulmonary tissue and pleura are destroyed, these new formations constitute the proper walls of the caverns; and if the process advances, these also may be destroyed, and the matter point externally."

Perforation of the pleura is one of the most distressing accidents which occur in the progress of phthisis.

"It is characterised by the suddenness of its occurrence, and by the marked symptoms to which it gives rise—sudden pain in the side affected, great oppression of breathing, and extreme anxiety, which are speedily followed by symptoms of acute pleurisy. This accident resembles the perforation of the intestine, the escape of feculent matter into the cavity of the peritoneum, and the violent inflammation of that membrane.

"Perforation of the pleura for the most part occurs in the advanced stage of the disease when the patient's strength is greatly reduced, and in general proves speedily fatal. It has caused death in twenty-four hours; but when the symptoms are less acute, the patient has lived for thirty days; and Dr. Stokes states a case where the patient survived five months. A sudden attack of pain, on one side of a phthisical patient, with much oppression and anxiety, may be considered as

indicating the accident. Louis, however, gives a case (xliv) where oppression and anxiety, without pain, marked its occurrence.

"Perforation of the pleura may take place under two circumstances: a tuberculous cavity, which communicates with the pleura by means of the perforation, may or may not communicate with the trachea. In the former case we have generally an effusion of air and fluid into the cavity of the pleura, connected with which there is present a peculiar symptom called *metallic tinkling*, or a clear fine sound resembling that produced by the falling of a pin on glass, and heard when the patient speaks or coughs. When there is no communication between the tuberculous cavity and the pleura and bronchi, or when there is an effusion of air only, or a very small quantity of liquid, it was Laennec's opinion that there could be no metallic tinkling. Dr. Williams, however, has shown the fallacy of this opinion, and that neither communication with the bronchi nor liquid effusion is necessary to the production of the phenomenon: he considers it to be nothing more than an echo or resonance which any sound or impulse propagated to a cavity of a certain form may produce.

"Of eight cases of perforation which occurred to Louis, seven were on the left side—a circumstance which he attributes to tuberculous disease being more frequent on that side, and often more advanced than on the right.

"Perforation of the pleura generally takes place over a tuberculous abscess or cavern of considerable extent; yet cases occasionally occur in which a small softened tubercle immediately under the pleura bursts and discharges its contents, and this may be one of a very few contained in the lungs. Andral mentions a case of this kind where the lungs contained only five or six tubercles. In such cases, from the small size of the cavity, little or no effusion of pus or other matter takes place, and, consequently, the perforation is not necessarily followed by pleuritis.

"Great accumulation of air in the pleura gives rise to the most distressing dyspnoea, and generally soon proves fatal, from impeded respiration. I lately met with a remarkable example of this kind: tuberculous disease was far advanced in the right side, while the left was but little affected; the patient was suddenly attacked after a fit of coughing with severe dyspnoea: the left side was found tympanitic, the intercostal spaces were distended, and no respiratory murmur could be heard. An opening was made between the intercostal space of the fourth and fifth ribs, from which the air rushed out with great violence, giving considerable relief to the patient. Death, however, took place in twelve hours from the commencement of the attack. On opening the body, the right lung was found everywhere adherent and full of caverns and tubercles; the left was, for the most part, free; but in one portion a dense, though not extensive,

adhesion had been partly torn from its attachment, thereby causing a rupture of the pleura over a very small tuberculous cavity, through which the air had passed freely from the bronchi into the chest, giving rise to all the distressing symptoms. The history of this case affords a good example of the manner in which the perforation is sometimes produced. This patient was seized, a few days before the accident, with acute pain in the left side of the chest; the pulse was accelerated, and other symptoms supervened, indicating an attack of pleuritis, which, being successfully combated by antiphlogistic treatment, had entirely ceased two days before the accession of the dyspnoea. From the weak state of the patient the existence of effusion could not be ascertained during life, but after death it was found to have taken place to the extent of twelve or fifteen ounces; by separating the pulmonary from the costal pleura, it had produced a partial rupture of the cellular tissue which formed the adhesion, and which was elongated between the two pleuræ to nearly an inch, and kept in a state of tension. In this state of the parts, the succussion of the cough had torn the pulmonary pleura at the edge of the adhesion, and thus produced the perforation. For this ingenious explanation of the manner in which effusion may break up adhesions, and occasionally give rise to perforation, we are indebted to Dr. Carswell."

Pneumonia, pleuritis, and pericarditis, are frequent complications of phthisis in its last stage, and often bring a case to an abrupt conclusion, which might otherwise have been protracted for several weeks, or even months.

Diseases of the Abdominal Viscera.—The gastro-enteric mucous membrane rarely escapes disease in the progress of consumption. Andral observes, that "softening of the mucous membrane of the stomach, hyperæmia of the different portions of the intestines, ulceration of the small intestine, accompanied in many instances by a development of tubercles, are all of such frequent occurrence in phthisis, that they may be fairly considered as constituent parts of the disease." The same pathologist remarks, that "these lesions may either precede or follow the formation of tubercles in the lungs; and in some cases the pulmonary and abdominal affections set in together." Dr. Clark's experience agrees in this respect with Andral's. The stomach, the lower portion of the ileum, and the colon, are the parts most frequently affected. Among the morbid conditions of the stomach there is one whose nature is not fully un-

derstood; its chief symptoms are vomiting and pain.

"Louis considers it dependent upon softening and wasting of the mucous membrane; but the experiments of Dr. Carswell have clearly demonstrated that such softening of the coats of the stomach is a *post-mortem* change produced by the action of the gastric fluid. The red softening is essentially different in its nature, and is the result of inflammation. But, whatever be the pathology of the gastric affection at present under consideration, it is very distressing to the patient, and difficult to remedy. According to the observations of Louis, it occurs from two to six months before death; but I have known it to exist for a much longer period, and even long before any symptom of pulmonary disease presented itself. In one young lady it existed for several years; and it was only within a few months of death that the pulmonary disease became evident. The extent to which the latter was found after death to have proceeded, showed how long it had remained latent, masked by the deranged condition of the stomach. Another patient, —a female, twenty-five years of age, whose brother lately died of tuberculous consumption—has retained scarcely anything on her stomach for upwards of two years, except a very little water, or toast-water; every thing else is rejected the moment it is swallowed. The emaciation and debility are very great. She presents all the external characters of tuberculous cachexia, with a short dry cough, and, if the affection of the stomach do not previously prove fatal, will most probably die of consumption at no very distant period. In this case the pain in the epigastric region is not great, even on pressure; but, in some cases, it is so severe, and so entirely absorbs the patient's feelings and attention, that, without minute observation on the part of the medical attendant, the pulmonary disease may escape notice. In general, the stomach can digest very little, and then only the lightest food. Occasionally the appetite and powers of digestion return for a time. This occurred in the patient last mentioned; during a residence in the country for several months in the summer, the stomach retained and digested light food well.

"It becomes a matter of some moment, in a practical point of view, to distinguish the vomiting which occurs in the course of consumption (and which is commonly attributed to the cough), from that which depends on a morbid state of the stomach. A little attention to the concomitant symptoms will generally enable us to make this distinction. When the vomiting is simply the consequence of the cough, we find no epigastric tenderness or pain; the appetite remains, and the digestion, in the intervals of coughing, goes on well: it frequently occurs at the commencement of the disease. When, on the other hand, it is the result of a morbid con-

dition of the stomach, it is generally preceded by loss of appetite and pain in the region of that organ—symptoms which continue and usually increase during the course of consumption: the period, also, at which vomiting first occurs in this case, is generally late in the disease.”

Enlargement of the Stomach has evidently an intimate connexion with consumption, though the cause of such connexion is not easily explained. Louis found it in more than two-thirds of the cases which he examined after death, while only two examples occurred among 230 subjects who died of other diseases: the organ sometimes acquires double or treble its natural volume, and reaches downward to a level with the spine of the pubis. *Ulcers of the intestines* are at first always small.

“They occur most frequently in the lower portion of the ileum, and chiefly in that part opposite its attachment to the mesentery, where the glandulæ agminatæ are chiefly situated. These glands form their primary seat. In the large intestines the ulcerations occur irregularly. When the ulcerative process is once established, it often extends to the surrounding tissues; the neighbouring ulcers coalesce, and the mucous membrane is undermined or destroyed to a great extent. Louis found them spreading to the length of nine inches, and running quite round the colon. Perforation of the intestine, although a very rare occurrence in consumption, occasionally takes place.

“The more early ulceration of the intestines occurs, the more rapid in general is the progress of the disease, because it is usually accompanied with intractable diarrhœa, which speedily wastes both the flesh and strength of the patient. Louis found tuberculous ulceration in the small intestines in *five-sixths* of the cases which he examined, and noticed it almost as frequently in the large intestines, the mucous membrane of which often presented other diseased appearances, being red, thickened, or softened in one-half of the cases; so that, of the whole number of phthisical cases examined by this physician, the large intestines were found in a healthy state through their whole extent in *three instances only*.”

The *mesenteric glands* are very often tuberculous, but more frequently in children than in adults; in the former they were found so by Papavoine in one-half of the cases he examined, while Louis found the proportion in adults to be something less than one-fourth.

“*Diseases of the liver*.—The liver, in phthisis, presents one remarkable alteration of structure, which consists in its

equable transformation into a fatty substance. This change appears to take place simultaneously over the whole organ, and to be intimately connected with the development of tubercles in other organs; for of forty-nine cases of this degeneration observed by Louis, forty-seven were phthisical and of two hundred and thirty subjects who died from other diseases, it occurred in nine only, seven of whom had a few tubercles in the lungs. When far advanced, it soiled the scalp and hands like common fat:—when the change existed in a less degree, its presence was detected by the impregnation of paper with fat, on a portion of the organ being enclosed in it and exposed to heat. This degeneration of the liver is marked by a pale fawn colour, diminished consistence, and increased bulk of the organ, which sometimes enlarges to double its usual size. The rapidity with which it takes place seems to depend almost entirely on the progress of consumption; for it has been found when this has run through all its stages in fifty days. Its occurrence is independent of the patient’s age or strength of constitution; sex, however, appears to have a decided influence, as of the forty-nine cases observed by Louis, only ten were males. The causes which conduce to this morbid change are very obscure: affections of the duodenum, which Broussais supposed to cause it, have been found by Louis to have no influence in its production. It is yet more remarkable that it is accompanied by no appreciable symptom except increase of bulk, and that the functions of the organ seem to go on undisturbed. The liver occasionally contains tubercles, particularly in children. A diseased state of the liver appears more frequent in some localities than in others. According to Desault, it is a very common occurrence at Bordeaux; so much so, indeed, that he scarcely met with a case of consumption in which he did not find this organ affected during life. ‘Je trouve constamment une obstruction bien marquée par dureté, et souvent douleur.’ This is certainly not the case in this country; for, although a congested state of the liver is a frequent attendant on phthisis, and often long precedes it, still I believe that it does not often proceed to such an extent as to form, during life, a perceptible tumour in the abdomen; nor is the fatty degeneration of the liver so common in this country as in France.”

Fistula in ano, having been frequently found in consumptive patients, has been thought to bear some particular relation to phthisis, but neither the observation of Andral nor of Dr. Clark has tended to confirm this opinion.

“It occasionally happens,” says our author, “that death occurs suddenly in the advanced state of the disease. The patient

does not appear worse than he has been for some days, when, while sitting up, he suddenly falls back and expires. Examination after death does not always enable us to explain this sudden cessation of life. Louis gives two cases, in one of which œdema of the glottis appeared to be the cause; and in the other, a rapid hepatization of a large portion of the lungs; but neither of these pathological lesions could account for the sudden terminations to which I allude.

"Among the causes of sudden death, *pulmonary hemorrhage* may be mentioned, as it is occasionally so profuse as to prove fatal in a few minutes. In such cases a considerable artery is opened by ulceration in the progress of the tuberculous disease."

Chapters 7, 8, and 10, treat admirably of the duration, statistical history, and causes of tubercular consumption; into these, however, our limits will not permit us to enter. We had intended to have brought this review to an end in the present number, but as we are unwilling to omit some interesting matter that remains, we must defer taking leave of Dr. Clark till our next.

—o—

Practical Observations on the Nature and Treatment of Nervous Diseases, with Remarks on the Efficacy of Strychnine in the more obstinate cases. By George Russell Mart, M.R.C.S.L., late of H. M. Ship Racoon. 12mo. pp. 185. London: Churchill. 1835.

The object of the author of this work is to detail the different diagnostic symptoms which mark the rise and progress of palsy, amaurosis, nervous indigestion, *tic dolooureux*, and neuralgia; to demonstrate the complicated nature of these diseases, and to shew that they are to be traced more frequently than has hitherto been suspected, to a morbid state of the blood, and to general constitutional disorder.

It is, in our opinion, certainly possible, but extremely improbable, that the morbid state of the blood is the cause of the disorders already enumerated.

This little work contains what may be considered new information. The virtues of strychnine are imperfectly known, and it has not, in our author's opinion, received that degree of attention which its merits demand. We entirely assent to this statement. Ample experience has convinced us, that there is not in the whole *materia medica* a more valuable remedy for nervous, spasmodic, neuralgic, and painful disorders, than strychnine. We

employ it largely, every day of our lives, in such complaints, in hospital and dispensary practice, and in the presence of several intelligent students; and also in private practice.

Mr. Mart has compressed into a small volume a very interesting clinical report of paralytic diseases, amaurosis, nervous indigestion, and neuralgia, in which cures were effected by strychnine. Though the work is written in a popular style, the facts it contains are valuable to the medical practitioner. Thus we find cases of paralysis, declared to be hopeless by eminent practitioners, which were perfectly cured by strychnine. We observe others that had passed through different hospitals, where they were declared incurable, though health was restored. We shall insert a few of the cases.

"CASE I.—In December, 1829, a friend requested the author's attendance on Mr. Wyatt, living at 45, King-street, Soho, purveyor to his late Majesty; he had palsy affecting the right side, arm, and leg; the muscles of the face were deranged, as were those of the tongue, causing him to stutter considerably. His general appearance indicated a person not in full possession of his intellects. He was unable to stand or walk, and required to be lifted into a carriage for an airing. No account of the cause of the above condition of the patient could be given, excepting fatigue and anxiety, and these of no great intensity.

"The paralytic seizure commenced three years previously, when the most eminent persons were then consulted, with little or no advantage to the patient; and as no hope of recovery could be entertained, the case was left to nature.

"The patient commenced with one-sixteenth of a grain of strychnine, in the form of a pill, taken three times a day. After two days, three pills a day, each containing one-eighth of a grain, were administered; and the medicine was gradually increased to one-third of a grain in the twenty-four hours. After continuing the strychnine for ten days, some slight twittings were experienced about the face, extending to the arm and leg. These sensations increased even to annoyance. At the end of three weeks he had more use of the arm, and could stand on his legs; and by the fifth week, could with assistance walk about the apartment.

"The strychnine was reduced to half a grain in twenty-four hours. In a few days the expression of the face became altered; from a silly look it changed to one expressive of archness, brightened by a good-natured smile. At the expiration of seven

weeks he walked without assistance. As he improved daily, and had been under treatment ten weeks, the medicine, about the end of February, 1830, was discontinued. He was visited again at the commencement of April, when he walked about the house, and expressed a hope to be soon able to ride out. In May, four months after the treatment had been commenced, he was able to proceed with his customary occupations; and about the same time he gratified the author's friend by driving to his residence.

"In July, 1832, Mr. Wyatt, now living in the Edgeware Road, was observed by his family to be labouring under unpleasant symptoms. Very soon afterwards he had an *apoplectic* seizure, and continued in a state of insensibility *fifty-eight* hours. During the fit, he was once seen by Mr. Copeland Hutchinson, of Duchess-street.

"Active treatment was used, consisting of general and local bleeding, *ice* to the head, warmth to the feet. The introduction of a catheter was required.

"Palsy of the right side was observable after the apoplexy went off, but in about three months the use of the limbs returned. The strychnine was again administered, conjoined with other remedies. Four months had hardly elapsed before he accomplished a walk to town, a distance of three miles. He is now in good health, and is able to take a very considerable degree of exercise daily.

"The result of this case excited surprise among the patient's family and friends; who viewed him as a person afflicted with a disease which would endure with his life, and in this view were confirmed by the opinion of others. It also strongly points out the efficacy of strychnine in a *long-neglected* and hopeless case.

"The recurrence of the apoplectic attack, two years after the palsy had been cured, probably had no relation with the former complaints. A fit terminating favourably, after enduring *fifty-eight* hours, is not of ordinary occurrence. The loss of motion of one side was complete. Nevertheless, the patient, by the use of the strychnine, recovered the power of the arm, and of locomotion in four months, while in the first attack he had been for *three years* unable even to stand.

"When palsy seizes persons of a strong and plethoric habit, it is attended with considerable disturbance of the functions of the brain, either previously to or during the attack; this derangement varies from forgetfulness, of a minute's duration, to that state of insensibility which characterizes a fit of apoplexy.

"It also happens with some paralytic patients, that whenever the circulating system becomes overloaded with blood, or the nervous system much excited, *epileptic* fits occur, which aggravate the condition of the

patient. In some instances, these appear at intervals of a few days or weeks, while in others they extend to two or three months."

After some judicious remarks on the pathology of paraplegia, in which much stress is laid on the fact, that disease in the brain is the cause of some forms of this species of palsy, a remarkable case is related in which strychnine effected a cure.

"CASE VII.—Thomas Linton, aged 42, had been two years in the Racoon Hospital Ship, in Portsmouth harbour, before the date of the author's appointment thereto. He was tall, thin, and had a sallow complexion, and was the most intelligent patient in the ward. He stated that he had not quitted his bed for twenty months, except on favourable days, when he was carried on deck for fresh air. The cause of the palsy was a blow on the loins by a fragment of stone, attended with considerable pain at the time, which in a day or two passed off. Some time afterwards he became alarmed by a feeling of numbness extending along the thigh, and a sensation as though strings were tightly bound round the legs. These symptoms increased, and at the end of three weeks the man was deprived of motion of the legs, and became unable to stand. Every means of cure were tried, including a mercurial course, which caused a loss of several teeth. Poor Linton received no advantage, and was considered 'an incurable.'

"The treatment was commenced by administering some blue-pill, and doses of purgative medicines; the state of the secretions required previous treatment. Afterwards, one-eighth of a grain of strychnine was ordered in the form of a pill twice a day, and a dose of a mixture containing *diluted sulphuric acid* taken at the same time. On the second day the pill was repeated three times, and the strychnine was gradually increased to a grain in twenty-four hours. When the treatment had been continued a month, no amendment occurred; but about this time a blister was applied over the part where the blow was received. On removal of the skin, one-quarter of a grain of strychnine was applied twice a day. The blister was dressed daily in this manner till it healed, when another was applied in the vicinity, which was dressed with half a grain of strychnine sprinkled over the denuded surface twice a day, and also administered internally in pills containing a quarter of a grain four times a day. Six weeks from the commencement, the patient began to improve; convulsive jerks were felt in the legs, and a sense of pricking and other odd sensations were experienced: the toes would move involuntarily. An erect posture had been attained several days; the patient sat in a chair, and moved the legs in every direction. He continued to improve in various degrees;

but the amendment was always more rapid after blistering. This treatment was continued four months; when he was so far recovered as to be discharged from the Hospital Ship, and had light work assigned him. Finally the cure became perfect, and he performed the duties of an able-bodied man."

Under the head "amaurotic blindness," are cases in which vision was restored under very unfavourable circumstances. We shall cite two of them.

"CASE XIII.—Fryer (an account of whose palsy of the limbs is related at Section I.) had amaurotic blindness affecting both eyes. When in a room he could only distinguish the aperture through which the light entered. He knew no one by sight, nor could distinguish the sex of individuals as they passed him. This very imperfect state of vision was produced by an attack of apoplexy occurring subsequently to the paralytic seizure. It will be recollected that this patient had epileptic fits every four weeks. The eyes had a wild staring look; but both were not equally affected.

"He was under treatment for eight months, and was twelve times blistered about the outer angle of the eyes, and over the brows, the blisters being about an inch in diameter; but he felt no inconvenience from them. Having undergone such rigorous treatment at Hospitals, he cared not for trifles.

"The restoration of vision was effected gradually. Many weeks elapsed before the slightest improvement was detected. In bright sunny days he could define passing objects, as various shapes of carriages, colour of horses, articles of dress, could then recognize friends, and examine the contents of street bills. When last examined he detected a fly creeping on the window.

"His state of vision always was aggravated some days previously to an attack of epilepsy—these fits have now disappeared. The sight continued to improve for a long period after discontinuing the treatment. He is of a full plethoric habit, and occasionally loses blood by cupping.

"CASE XIV.—Mr. D—y, a gentleman, living at the end of Harley Street, New Road, has been afflicted with amaurotic blindness many years. The deprivation of sight was sudden, both eyes being affected. The patient can scarcely distinguish the outlines of a human person, and requires a strong light even to perceive a white object on a dark ground. He experienced at times much inconvenience in standing and walking, and occasionally was unable to do either without support. During these attacks of nervous debility in the lower extremities, and whenever great atmospherical vicissitudes occurred, he was seized by neuralgic pains at various parts, frequently preventing sleep at night, and causing much disquietude through the day. The pains were sudden

and transient, returning at intervals of ten or twenty minutes. The principal seats of pain were the legs and sometimes the arms.

"This case has been seen and treated by the most eminent medical practitioners; no means being spared for advice, which was eagerly sought for wherever there was a chance of deriving benefit.

"Treatment by strychnine was used for three months, internally and externally; blisters were applied to the nape of the neck, and also about the eyes, and dressed with strychnine after the cuticle was removed. The pills were given with one-tenth of a grain in each, and gradually increased to one-eighth and one-sixth three times a day.

"The result of the treatment was decided benefit in walking and standing, so that the patient could walk round Regent's Park; the pain along the nerves of the legs and arms ceased, leaving a dull, uneasy feeling, analogous to slight rheumatic pains.

"There was a probability of more advantage being derived had the treatment been carried on a longer period. A few days previously to the medicine being discontinued, the patient was in a chair at the dinner table, and on looking round was amazed at beholding distinctly many features which he had been unable to distinguish for years past. The eyes, shape of the nose, and the teeth of the company were perceived. This improved power of vision continued nearly all dinner time; it then fell back into the old condition, and has remained so to the present hour. A further trial of the treatment was unfortunately never given, although it would warrant a repetition."

After a graphic description of nervous indigestion, in which patients complain *de omnibus rebus et quibusdam aliis*, a case is related which deserves attentive perusal.

"CASE XVIII.—Miss Cook, of Edinburgh, aged 35, had come to town for advice, and was living in the Adelphi Buildings. She had from the age of fourteen been afflicted with headaches. At first they were ascribed to irregularity of the salutiferous periods; then to disturbed functions of the stomach, to diseased liver, to a renal complaint, and latterly to an undefined chronic affection of the membranes of the brain. For these several maladies she had been under treatment.

"Her head at length became the principal seat of complaint. On rising in the morning, and at various periods of the day, the patient would foretell the approach of an attack, by a coldness creeping over the body, by numbness of the scalp—especially over the forehead, by dimness of vision, and by a disposition to vertigo—accompanied by nausea, and sometimes by vomiting. Pain in the head would then commence, and increase in intensity, till, from severe suffering, she was compelled to retire to bed in a state

of stupor. At these times the senses of sight and hearing were so painfully acute, that she could neither endure the presence of light, nor the sound of the voice. A bandage tightly bound round the head, restrained the beatings of the blood-vessels. After suffering in this manner from six to eighteen hours, the patient would then obtain sleep, and waken free from pain, but weak, pale, and emaciated. The simplest variation from regular habits, such as a drive in a carriage, a sudden alarm, unexpected intelligence, a quick walk, or any sudden call for exertion, has produced the attacks. When free from headache, her temper was cheerful and lively, though she daily experienced some of the symptoms which characterize gastric nervous irritation; such as sour eructations, flatulency, heartburn, and occasionally *water-brash*, which is a discharge of a clear insipid liquid from the stomach.

"The disordered secretions had been corrected by alterative medicines, and some leeches applied to the back of the neck to relieve the congestion supposed to exist in the head. The health was moreover generally improved by proper diet and exercise. The patient began the treatment by taking one-tenth of a grain of the sulphate of strychnine, in the form of a pill, night and morning for three days. Afterwards, three pills were taken every day for eight weeks.

"Ten grains of strychnine were dissolved in five ounces of spirit, half an ounce of which was rubbed on the back of the neck every night. An attack of headache occurred a week after the treatment was commenced, but there was no return of it during the remainder of the time the medicine was being administered. Previously to this, the attacks generally appeared at intervals of ten or fourteen days. After the treatment was discontinued, a dull pain was felt at the forehead every morning on rising, and continued one or two hours after breakfast. This symptom finally yielded to the cold shower bath."

We can bear our testimony in favour of the great value of strychnine in similar cases, and order it in the dose of one twelfth of a grain in a pill twice a day, for at least a dozen patients daily, in public and private practice.

The last part of the work before us is devoted to the pathology and treatment of neuralgia. In this section are some cases which will be perused with instruction, and these were cured by strychnine.

In conclusion we have to remark that this little work is well executed, and contains much interesting information. It will no doubt contribute to induce practitioners to

employ one of the most powerful and valuable remedies we possess. We wish others would follow the example of Mr. Mart in giving much practical information in the shortest possible space. The work reflects much credit on the author, and proves him to possess great skill in the distressing diseases of which he has treated.

—o—

The London Medical

AND

Surgical Journal.

Saturday, August 29th, 1835.

ONE FACULTY—REAL REFORM MUST BE THE WORK OF THE PROFESSION ITSELF.

We have good grounds for hoping that the one medical faculty so ardently desired by all enlightened members of the profession, and so vehemently declaimed against as absurd and impossible by the corruptionists, will ere long be actually established—that it must be so eventually we never entertained a doubt. Only a little while ago we were laughed at as visionaries by some, and regarded as simply insane by others, for our opinions on this subject; it was matter of astonishment that grave men like ourselves should be led astray by an ignis fatuus generated in the overheated brain of Mr. Wakley; but the fact is, we were precisely of the same opinion long before we ever heard of that gentlemen; and, strange to say, many who formerly pitied his and our delusion, have now become converts to the doctrine—the rest will, perhaps, like Thomas, believe when they see. The establishment of one faculty, however, will only lay the foundation of efficient medical reform; such reform cannot be perfected by the legislature, but must be the work of the profession itself. There are evils to be eradicated which legislation cannot reach, and improvements required which can only be brought about by a good internal organization of the profession, springing from liberal feeling and gentlemanly

conduct on the part of its members. Among the evils to be eradicated, the principal are, the dispensing of drugs by medical practitioners, and gratuitous attendance at public charities. On both of these we trust enough has been said by us on former occasions to convince all unprejudiced persons of their degrading and injurious influence on the profession; but it is not in the power of parliament to abolish either of them by any direct enactment. It would be to the last degree arbitrary and unjust, immediately to inhibit all medical practitioners from dispensing drugs, because there are many most respectable members of the profession who depend for their subsistence mainly on their retail shops; all that the legislature can do is to place the practitioner in a condition to be independent of trade, if he pleases, by entitling him to a fee for his attendance; the evil can only be entirely abolished by the influence of professional feeling and opinion, which have always great weight, where a learned fraternity is properly constituted: it is true, indeed, that the opinion of the profession at present goes for little or nothing with its individual members—but why? Because it is in reality not worthy of regard; the profession is a mere name; it has no united opinion—no moral influence—no collective respectability.

Again, parliament cannot prevent medical men from offering their services gratuitously to hospitals and dispensaries; but the profession itself might gradually abolish the practice, by attaching the merited stigma of hypocrisy and self-debasement to the man who used charity as a cloak for his own private views, or who submitted to be made a drudge and hack in the hope of future emolument.

Among the improvements for which the institution of one faculty will afford scope, but which it rests with the profession itself to effect, the most prominent are the establishment of a sound

code of professional morality, and the extension of the means of scientific instruction. Medical ethics is at present a term without a meaning; relative duties can neither be understood nor fulfilled unless the relations which entail them be determined; but as the profession is now constituted, no man can distinctly comprehend the relation in which he stands to his neighbour; hence it is not wonderful that each should interpret it in the manner most favourable to himself, and that the maxim “catch who can” has come to be regarded as a compendium of medical morality: thus the duty of the general practitioner is to keep the physician out as long as possible, and that of the physician to oust the general practitioner whenever he is able; the duty of a pure surgeon is to proclaim the necessity of an exclusive addiction to *surgery*, and to take all the *medical* cases he can get; the pure apothecary affords an amiable exception to this selfish rule; his duty is to cultivate the “good understanding” system at the expense of the patient, and to call in his friendly physician or surgeon whenever physic goes further than a catarrh, or surgery deeper than a cut finger; a reciprocity of *pure* feeling towards himself is indicated by a prescribed transfusion of the whole contents of his shop into the stomach of the patient. Such ethics as these might possibly be improved under the auspices of one faculty, where the same temptations to evil would not exist; where the recognised relations of medical men to their patients would be those of skill and humanity, and their relations to each other those of honesty, with a due admixture of courtesy in both instances. Under such a system every member of the profession would feel himself in some degree amenable to the opinion of a large body of men whom similarity of education and objects rendered the best judges of his proceedings; the charge of “unprofessional conduct”

might then be a grave one, instead of being, as it now frequently is, a mere indication that the individual has acted according to the dictates of common sense.

Again, under one faculty, the opportunities of scientific improvement might be infinitely extended. A museum and library open at all reasonable hours, lectures delivered by able professors on every branch of medical science, and meetings of the faculty for the purposes of mutual instruction and consultation on the means of promoting professional improvement, would speedily change the aspect of British medicine, and enable us to convince the world that, with equal advantages, England yields not to any country on earth in the will or the power to advance this noblest of sciences. If we have been more ready than may have been agreeable to the prejudices of some of our contemporaries, to acknowledge our present inferiority, none will be prouder than ourselves to record the rapid progress which we feel confident will result from the dissipation of the thick cloud of barbarism which has hitherto brooded over the scientific institutions, and damped the scientific ardour of our country.

—o—

Hospital Reports.

WESTMINSTER HOSPITAL.

Cases illustrative of the benefit to be derived from the use of the Balsam of Peru, as a local application, in Sloughing and Phagedænic Ulceration of the Genital Organs.

Sloughing Ulcer of the Prepuce, terminating in the total destruction of the Glans.

EDWARD HERRING, aged twenty-three, was admitted into Burdett Ward, July 14th, under the care of Mr. White. He has had a small sore on the outer surface of the prepuce, during the last two or three months, which attracted very little of his attention; it spread slowly, and attained a size about equal to that of a sixpence, being somewhat of a circular form. He merely took a few pills and salts for it, and does not appear to have regarded it as venereal.

On the Monday week previous to his admission he got intoxicated, and from this period it began to spread, and to assume an unhealthy character. At the present time the penis is swollen to a considerable extent, has a glabrous character, and is pervaded by a deep erythematous blush, except about the glans and prepuce, where the ulceration exists, and which possess the flabby, dark, and moist character of gangrene. No limitation appears at present to be set to this destructive process. The tongue is slightly furred with red margins, appetite is much impaired, bowels are regularly open, pulse 96, hard and thrilling. Mr. Thomson, who saw the case for Mr. White, directed lint dipped in Peruvian balsam to be applied to the ulcerated and gangrenous parts, and the entire penis to be afterwards enveloped in a warm poultice. The following mixture was likewise prescribed:

℞. Quininæ sulphat., gr. viij;
Acid. sulph. dilut., ʒ ij;
Decoct. cinchonæ, ʒ viij;

M. Capt. cochl. ij ter quotidie.

17th.—Seems rather better; the penis, however, remains in much the same condition, except that the gangrene appears now to be limited about an inch above the prepuce. He does not complain of much pain, and evacuates the bladder without difficulty. The tongue is very flabby and moist, and covered with a thick fur; the appetite is something better and the bowels open; pulse 96, and of the same thrilling character as before.

18th.—The gangrene appears now to be completely checked, but the inflammation in the penis, especially about the line of demarcation, is still very active. The pulse, both as regards frequency and other characters, is the same as at last report. He continues the application of the Peruvian balsam and the poultice.

20th.—Is a great deal better; the inflammation in the penis is abating, and the separation of the slough has commenced. He has now no pain at all. The tongue is less furred; pulse 84, and not of so irritable a character.

21st.—The greater part of the slough has come away, and has left a healthy-looking, granulating surface, which secretes a laudable pus. The inflammatory action in the penis is likewise subsiding. The appetite is better, and the general health in all respects, appears to be improving.

23rd.—A progressive improvement appears to be going on.

25th.—The whole of the slough has come away, and has left a sore having a very healthy character, and granulating nicely. The whole of the glans and prepuce, however, as well as a portion of the body of the penis have been lost.

28th.—Going on favourably, both as respects the local and constitutional conditions.

30th.—During the last week he has become very deaf, and has had a discharge from both ears.

August 8th.—The deafness and otorrhœa have both now ceased. The sore on the penis is now about cicatrizing. At the extremity of the penis is a small roundish tubercle, which is surrounded by a circular fold, the two resembling a rudimentary glans and prepuce.

Phagedænic Ulceration of the Penis, rapidly destroying the Prepuce, Glans, and a considerable portion of the entegument of the Penis.

James Havell, aged nineteen, was admitted July 19, into Burdett Ward, under the care of Mr. Guthrie. He appears to be of dissolute habits, and of a broken-down constitution. His occupation is that of selling fruit in the streets, and his residence is in one of the lowest parts of Westminster. On Monday week, the 10th instant, he first noticed a small sore, about the size of a pea, on the inner skin of the prepuce. This was about three weeks subsequent to the last time of his having venereal connexion, in the indiscriminate use of which, however, he had frequently indulged during the preceding month. He neglected to apply any where for advice until Thursday the 14th, when finding that the sore was making progress, he became an out-patient at the hospital.

Mr. Soden, the house-surgeon, ordered him the black-wash, as a local application, and the blue-pill, in five-grain doses, three times daily. Under this plan, however, the sore continued to spread, and the patient perceiving a small black spot on the outer skin of the prepuce, applied a poultice over it, after which there was a complete perforation of the prepuce. The sore now rapidly spread, assuming an unhealthy, corroding-like character, destroying a considerable portion of the prepuce and extending likewise to the glans. So rapid was it in its ravages, that between Thursday the 14th, and Monday the 18th, the half of the prepuce, and a great portion of the glans were destroyed by the ulcerative process. During this period, he had been leading a very irregular life, drinking at least four or five, and sometimes seven or eight pints of beer daily, as he says is his usual habit. He was taken into the hospital, on the next admission day, as above stated. At this time the prepuce, on the left side, is entirely destroyed, as well as a portion of the glans and skin of the penis, so that the corpus cavernosum is exposed; the whole sore has a highly irritable and offensive aspect. The body of the penis is extensively swollen, and of a deep red hue, as though from phlegmonous erysipelas. Mr. Thomson, who was acting for Mr. Guthrie, made an incision, about an inch in length, into the most swollen part of the organ; the

mercurial plan of treatment was ordered to be discontinued; the Peruvian balsam dressings and poultice were directed to be applied, and he is to have the following mixture—

R. Extracti sarsaparillæ, ʒj;
Decot. sarsap. comp, Oj. M.

Fiat mistura, capt. part. tert. ter. quotidie.

He is ordered fish diet, and to keep constantly in bed.

23rd.—Under the above treatment, the sore has already put on a more healthy character, and the progress of the ulceration appears to be checked. The penis is less swollen and red, and in every respect he appears better. He continues the remedies.

28th.—Going on well; the sore has now a very healthy character, and is granulating favourably. His general health appears pretty good.

30th.—Continues to improve rapidly; the inflammation in the penis has almost entirely subsided, and the ulcer has nearly filled up with healthy granulations, the sore, appearing disposed to heal quickly. It is now dressed with pledgets of simple cerate. He only takes the sarsaparilla, and an occasional aperient.

August 1st.—The sore is now rapidly healing, and has commenced to cicatrize. His general health has very much improved.

Although the case reported last week is not of the same description as the foregoing, yet as it possesses some affinity to them, and was benefitted by a similar plan of treatment, we applied it to them.

Hydrophobia.

August 21, 1835. — Chester, aged 72, a powerful muscular man of his age, was admitted into the Westminster Hospital at half-past one to-day, under the care of Dr. Burne; only an imperfect history of the case could be obtained. About fifteen months back, he was bitten by a dog on the fore-finger of the right hand, from which he has from time to time suffered some inconvenience, and applied to a neighbouring chymist for relief. He had been poorly some days back, and yesterday morning, vomited his breakfast, which he had just taken. Since then he has been complaining of a sense of constriction about the throat; the bowels were freely purged yesterday; also this morning, he has had two doses of the acetate of morphia of $\frac{1}{4}$ grains of each. At the time he was brought to the hospital, he was in the following state: the cicatrix of the bite was apparent, and the hand rather swelled and inflamed; a blue line, probably an inflamed lymphatic, extending from the cicatrix to the elbow was visible; pulse 54, occasionally irregular and unequal;

tongue red; great desire to eat and drink, but unable, except a small quantity of fluid, and that with considerable effort. There is a great inclination to vomit, but he brings up nothing.

At half-past four he has had one drop of hydrocyanic acid, and also a few tea spoonsful of liquid; the pulse has varied from 45 to 60; the inclination and efforts to vomit are greater; respiration frequent, and varying much numerically; countenance anxious, but spirits excellent; abdomen tympanitic; convulsive spasm of the throat comes on occasionally, with suffocating cough on the approach of air or liquids, and at intervals, without any apparent exciting cause, when there is slight horrifications. At the approach of liquids, he eyes them, perhaps, even professes a desire for them, from thirst, but appears to have an uncontrollable, unconscious aversion; but neither on this point nor on the approach of air is he as morbidly sensible as the boy who was in Charing Cross Hospital some time back. He was ordered ext. bellad. $\frac{1}{4}$ grain to be taken every hour in some soft vehicle, so that he might suck it.

At half-past eight a great change has taken place; the pulse, at half-past four about 52, has rapidly risen to 160; it is a moderate size, open, and yielding, but still perfectly distinct. A blister has been applied to the neck, with the view of applying some anodyne endermically. He is much excited, and talks rather incoherently, but a rational answer can be obtained without difficulty. The exhibition of a looking-glass does not affect him. Blowing upon him pretty strongly convulses and makes him shudder.

At a quarter-past nine, he has passed urine which is scanty and high-coloured. The hawking and gulping, and suffocating cough recur more frequently. He has taken three doses of belladonna. The only thing he complains of is a sense of constriction across the chest. When asked to drink, he says he "should like it, but not just at present, as it would throw him into a perspiration." He put his hand into water rather reluctantly, but quickly withdrew it, and wiped it. Before each convulsive paroxysm, there is a great deal of hawking. The eyes have rather a glaring expression, and the countenance has become more anxious, but he does not appear to have the slightest apprehension of any danger. The excitement soon became greater; his wish to walk about the room a little was indulged, but he became so outrageous that the assistance of several people was necessary to replace and keep him in his bed. After a consultation between the medical officers, when some doubt was expressed as to the identity of the case, especially by Mr. Thomson, it was resolved to administer an injection containing three grains of elaterium immediately, to be followed with others, containing two grains of

the extract of belladonna each, according to circumstances.

At ten, face much suffused, eye-balls tremulous, pupils much dilated, cough more frequent, and he blows violently from his mouth; pulse about 190, perfectly distinct, small, and soft.

At half-past ten, the enema has not operated; another was administered, consisting of ext. belladon. gr. ii; jusculi bov., $\frac{3}{4}$ iv; amyli, $\frac{3}{4}$ ss; he coughs and gulps more frequently, but is much more tranquil.

At a quarter to eleven, he does not now appear sensible, nor can any answer be obtained from him. He is now quiet as to active exertion, but there are frequent convulsive movements, moaning, hawking, and rattling in the throat; the feet are getting cold, but the head is excessively hot; the pulse 145, rather full, soft, and compressible; bowels not open. He has thrown up a small quantity of frothy coffee-coloured fluid.

At a quarter past eleven, pulse 144, smaller, but quite distinct; exhaustion greater, eyes glassy; countenance livid; moves but little; suddenly he became more tranquil, the cough and gulping ceasing, and in five minutes he was dead.

Autopsy twelve hours after Death.

The muscles and joints of the lower extremities were stiff; those of the upper flaccid. The posterior part of the body, and the entire head were livid, especially towards the right side. The abdomen was rather tympanitic. The scalp was gorged with blood, and on removing the calvarium, a large quantity of black blood escaped from one of the sinuses, which was wounded. The blood in all the veins was black and fluid. The brain was rather vascular. The cerebral ventricles contained about $\frac{3}{4}$ liij of fluid, and their veins were rather congested. There was a good deal of venous vascularity. About the substance of the brain, the organs of the nerves presented no unnatural appearance. The laryngeal and tracheal lining membrane was excessively injected, but quite sound; the same state extending down to the lungs, which were uncollapsed, and full of frothy mucus, presenting on their surface many purplish red spots. There was very great vascularity of the pharynx, uvula, velum, palati, pillars of the glottis, surface of the tongue, and epiglottis, diminishing towards the pharynx, and increasing towards the larynx. The stomach was perfectly healthy, and the intestines moderately inflated.

Dr. Burne considered this a true hydrophobic case, and declared his intention of making it the subject of a clinical lecture in the course of next week.

THE MEDICAL PROFESSION AS IT IS,
AND AS IT OUGHT TO BE.

*Mr. Dermott's third Letter to G. J. Guthrie,
Esq.*

DEAR SIR—My last letter related to the merits, more particularly of private lecturers, improperly so called, and to objections advanced against any persons, not hospital surgeons, teaching anatomy.

We next proceed to your objections against permitting any young men to become examiners in the College of Surgeons.

You do not admit that the younger men in the profession (say from 25 to 35 years of age) are competent to be examiners, not until they are at least 40 years old, because, you state, they are before that time only theoretically acquainted with the profession.

Now, the same observations which I made in my last letter, as to the competency of a lecturer, will apply, in the fullest extent, to that of an examiner; it is not merely your own experience, but also the experience of others, which makes you so competent an operator, a lecturer, a general practitioner*, and an examiner; take away your theoretical knowledge, and where would even you be left.

If the principle be once admitted, as it has been practically by the College, again and again (both in hospitals and out of them), that young men at 25 years of age can efficiently teach anatomy, then are they also competent to be examiners; for I hold that a man must be competent to examine upon that which he can preach about. This applies to the pulpit, the bar, and to all arts and sciences.

In reference to the incompetency of persons to fill the office of examiners, it must be observed, that, as a general rule, very old persons are, of all others, most incompetent either to examine or lecture; for a person to be either one or the other, he should possess a clear and quick perception, good memory, a collected mind, and firm nerves—not the semi-paralyzed brain of dotage.

It is true we, have as a singular exception to this general rule, Sir William Blizard, who still retains his natural vigour of mind, and even body, and who is, notwithstanding all that may have been said against him in some quarters, the best examiner at the College, the fear of whose examination produces a more salutary effect in stimulating the pupils to study, than anything besides connected with those examinations. It is true that in the Board of Examiners, or about to become some of that Board, we chance to have a Cooper, justly termed a Leviathan in

surgical knowledge, a Brodie, a Lawrence, and a White, the latter characterised for his surgical judgment, and his fatherly attention to his pupils; and that we have also had a Lynn, who was declared by John Hunter to be, during his time, the best operating surgeon in London. But it is also true that others have been chosen, who have neither been distinguished “for their high moral character” (witness the burning of the Hunterian manuscripts), nor for their “considerable attainments in anatomy, physiology, and surgery, and the higher branches of the profession.”

The younger examiners are generally the most “sifting.” Old men, on the other hand, get doting—they dote on persons, dote on things, dote on words, whilst their prejudice in favour of certain opinions (and it must be the fate of us all, if we live to be old), increases with their years; hence some of the elderly examiners have had a certain routine of questions from which they have seldom or never deviated, and which are well known both to teachers and pupils.

In order to show exactly how the choice of examiners had been conducted for the last fifty years, a list not only of those who had filled the office during that time should have been called for, but also of all those *who have been passed over* by the College during the same period, and the grounds of objection advanced at the time of balloting, against their admission distinctly stated. This would have been but fair, as well as possible, as I suppose minutes are kept of those meetings.

In addition to your proposal, that the mode of election should remain as it now is, two other plans were brought forward—the first, Mr. Lawrence's, that the electors should be those who practise surgery only, and which would be a base injustice to general practitioners, not to be tolerated in the present age of reason, and ill accorded with his professed opinions in 1826. The second, Mr. Travers's, Sir A. Cooper's, and others, *that there should be two grades, a superior and inferior*; the latter to comprehend the general practitioner; but for the superior grade, they propose a man to be highly versed in various languages, to produce certificates of having attended a vast number of courses of lectures on the various sciences, medical and non-medical, and having pursued a formal and most expensive routine of study for several years; that the successful candidates should acquire the name of “Bachelors of Surgery;” and that out of this body (about they compute, 50 or 100), the examiners, the teachers, and the council should be chosen, by the council itself. I presume this would form an aristocratic body, and the corporation would be nearly as close as at present, for these bachelors would be often brought in contact with their seniors in the council—would be in surveillance to them, inasmuch

* By general practitioner I mean the man who treats both medical and surgical cases: we are all general practitioners.

as they would naturally look to them for preferment as to appointments, and for patronage in practice. Besides, the plan would be a perversion of nature itself; for, as I stated in my evidence, after a man, possessing natural talent or genius, has made such an advance in preliminary education, and the general knowledge of his profession, as to guarantee him worthy of being trusted with the lives of the community, his mind adopts a course of thinking for itself, and he pursues a particular branch of his profession, perhaps to the almost total neglect of other sciences. This is the character of true genius. His pursuit may be physic, or morbid and healthy anatomy, or surgery.

In corroboration of this, most of the great discoverers have been very ignorant in some of the leading sciences, and perhaps knew nothing of foreign languages. It would, therefore, be thwarting the course of genius to insist upon a man's proficiency in many languages and sciences, for the purpose of his attaining the higher grade. When a man's attention is divided between many sciences and languages, he improves none of them; and he seldom excels in any. In place of these two regular grades, I should propose, that after he has taken his license out as a general practitioner, to become a consulting physician, he should be obliged to undergo a suitable, severe, and public examination in sciences connected with physic; or, to become a consulting surgeon, a suitable severe examination in branches connected with surgery; and this seems to accord with Sir B. Brodie's view of the matter.

In reference to the two proposed grades, Sir C. Bell says, that "the plan would be attended with great difficulties and disadvantages: industrious men of moderate fortune could not gain an admittance into the higher grade; and a man who has to struggle against difficulties, acquires greater strength of mind, and is the greater proficient; crowding the curriculum as to the requisite number of courses, &c., is always disadvantageous." Thus, then, the grade itself would be a political, aristocratic body (as you yourself stated), confined to those of property, to the detriment of the poorer and really industrious; besides, who, as the council of the College is now constituted, is capable to decide the competency of a candidate for this proposed batchelorship. Are you, or the majority of the best surgeons of the day, competent to examine or be examined on medicine, on the dead languages, on the various branches of natural philosophy, as well as on the abstruse theories of the present day in physiology, pathology, and surgery? Why require more from these new candidates than you can do, or are expected to possess yourselves. It is absurd to expect a man to shine as a deeply learned scholar in all the various branches of the medical profession, both as physician and surgeon, in natural

philosophy, and classics too. Again, calling in others, (whether physicians, classical scholars, or natural philosophers), to aid you in the examination of candidates for the higher grade, would be a confession of weakness most humiliating on the part of the council; for you would be saying to the public, in effect this—we consider it absolutely necessary for this gentleman to be deeply learned in all these branches of human knowledge, before we admit him on a level with ourselves into the higher classes of the profession; but we are obliged to call in the aid of others to assist us, inasmuch as we are quite incompetent, *individually*, to undergo or conduct the examination ourselves. There would be, by these two grades, a macadamised path open for favouritism. The right of being examined for the higher grade would depend, for the most part, on certificates, which have too often been a farce at best, both in the hands of hospital surgeons and others; they are tests that the pupil has, probably, a pocket full of money, a mind full of indolence, and a head full of ignorance.

In anticipation of future changes, an immense number of empirics are attempting to obtain diplomas, directly or insidiously, from any chartered medical corporation that they can; and by favouritism, or any means that they can possibly devise. Let the College look well to this; for the public eye is now upon them. Let them be heedful of their conduct with regard to the E—d—s, the I—d—s, and many others of the same cast, although, perhaps, not quite such glaring offenders. But there are many practitioners who commenced before the year 1815, who never attended a single lecture, nor, perhaps, read a medical journal, and who are trespassing upon the public without having undergone any examination, or gained any diploma whatever.

I remain, yours, obediently,
G. D. DERMOTT.

Medical School,
Gerrard Street, Soho.

—o—

LITERARY NOTICE.

The Christian Physician and Anthropological Magazine, to be published the 1st of September, and continued monthly.

—o—

CORRESPONDENTS.

—

A. B.—Yes, unquestionably.

A Student.—The regulations do not apply to him.

An Inquirer.—We have not heard who is to succeed to the Botanical Chair at King's College.

THE

London Medical and Surgical Journal.

No. 188.

SATURDAY, SEPTEMBER 5, 1835.

VOL. VIII.

LECTURES
ON THE
INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF
MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXVII.

Phænomena of Motion.

WE have now to return to the proper motiferous nerves, and the motiferous portions of the regular nerves, in conjunction with a department of some of the respiratory nerves, which, like the facial and pneumogastric, are furnished with motiferous filaments, as the channel by which this intermediate irritation of the anterior columns of the spinal cord is translated to the voluntary muscles, so as to act as a stimulus on their irritability. The chief circumstance tending to prove that this is their office may be shortly spoken of in an order similar to that in which those were described which render it probable that the office of the respiratory nerves is to convey the stimulus of sympathy and passion or instinct. These circumstances were connected, 1, with their distribution; 2, with their association with other nerves; 3, with their dependence on the action of the brain; 4, with their development in the various tribes of animals; 5, with their structure; 6, with their competency to conduct certain artificial stimuli; 7, with the phenomena resulting from the irritation; and, 8, with the phenomena resulting from their obstruction (*a*).

(*a*) The proper motiferous nerves enumerated in the tabular view of the nerves of the human body, already presented, consist of the motor oculi, a part of the lower maxillary branch of the trigeminus, the abductor and the hypo-glossal, and the regular nerves—one portion of each of which is also motiferous—of the sub-occipital, the seven cervical, the twelve dorsal, the five lumbar, and the five sacral. To these must be added, as elsewhere explained, a portion of the facial nerve as well as of the pneumogastric; the other respiratory nerves, although most of them have been looked upon at one time or other as motiferous, being, if at all, certainly very obscurely connected with the system in question. All the proper motiferous and regular nerves have been pretty generally admitted, from a very early period, as performing the office above ascribed to them, except the motiferous portion of the lower maxillary branch of the trigeminus, which was first distinctly described as such by Mr. Mayo, Sir Charles Bell having erroneously represented the whole of the trigeminus nerve as a regular one—that is to say, as both motiferous and sensiferous in all its branches—whereas, it is now known

that, as the ophthalmic and upper maxillary branches of this nerve, together with the larger portion of the lower maxillary branch also, are exclusively sensiferous, the smaller portion of the last is equally exclusively motiferous. It is a very common, but a very erroneous impression, that the ancient physiologists were quite ignorant of the plurality of the nervous system, and, ascribing as they did, merely the power of exciting voluntary motion, and of communicating sensation to these agents, attributed these offices conjointly and indiscriminately to all the nerves with which they were acquainted. So far, however, is this from being the case, that even Herophilus and Erasistratus—the first to dissect a human body—were accustomed to distinguish the *Νευροὶ κινητικοὶ* from the *Νευροὶ αἰσθητικοὶ*; and Galen expressly says that all the hard nerves belong to the former set, and all the soft ones to the latter. (De Administrat. Anatom. Lib. iii, c. 17; De Usu partium, Lib. viii, c. 16, &c.); a statement which, with a very little alteration, would strictly correspond with the fact. The same doctrine was inculcated by Aretæus (De Paralysi) Ruffus (De Appel. Part.), and other ancient authors,

I.—With respect to the distribution of the proper motiferous and regular nerves, this is found to correspond very accurately with the presumption that it is these systems which communicate the stimulus to voluntary motion—such organs as are not amenable to this stimulus having no obvious supply of nerves from these systems, while those which either occasionally or habitually obey it derive their nerves either partially or principally from these sources. All the nerves conveying this stimulus appear to arrive from the two anterior columns of the spinal cord, the proper motiferous having no other origin, but the regular having a second root from the posterior columns, in virtue of which they conduce, not only to voluntary motion, but to sensation also (*a*); and these nerves, extensive as is the collective area over which they are distributed, are nevertheless less generally disseminated than the respiratory nerves, in proportion to the less extensive sphere of their operation. Thus, no such nerves appear to be distributed to the heart, the various secretory organs, the stomach, the iris (*b*), or any other parts over the motions of which we exercise no control; whereas they are found to supply, in common with obvious branches from the respiratory system, the respiratory muscles, and all those by which the numerous motions connected with this process are effected, those by which the aliment is received and transmitted to the pharynx, those which minister to the excretion of the stools and urine, those by which copulation is performed, and those which conduce to certain movements of the nostrils, eyes, face, and other organs commonly excited by sympathy and passion or instinct, but capable of being effected, as well as liable to be continually modified by volition; while it is, lastly, from these systems principally that those muscles by which we whistle, whisper, speak, direct the organs of the nerves in the proper discharge of their functions, and effect the various movements of the head, trunk, and extremities, are found to be supplied. Accordingly, in effecting the former series of processes, the respiratory nerves are more frequently in requisition, and in effecting the latter the proper motiferous and regular. Thus, when we respire, as actuated by the ordinary stimulus of sympathy and passion or instinct, it is by means of a smaller or greater number of the proper respiratory nerves, in proportion as this process is less or more energetic, that we do so; but

and more recently by Fallopi (Obs. Anat.), Willis (Anat. Cereb.), Tissot, Cabanis, and numerous other writers; but the subject of the plurality of the nervous system had, nevertheless, been almost lost sight of in books, as well as in schools of anatomy and physiology, till it was revived and presented to the world in a collective form, and with many additions, by Dr. Gall, as it was subsequently by Sir Charles Bell; to whom, in conjunction with his contemporaries, we are indebted for our knowledge of almost all which has been established on the subject.

(*a*) It is only very lately that it has been tolerably well ascertained that the nerves above enumerated as motiferous arise, not any of them from the brain, but all from the spinal cord; and that there are not, in fact, any cerebral nerves in the body, all those belonging to the cerebro-spinal system, whether respiratory, motiferous, sensiferous, or regular, although they may pass through certain parts of the brain in their course, actually originating below this organ. Thus the source of the motor oculi is stated by Vieussens, Morgagni, Winslow, Lieutaud, Soemmering, and others, to be the crura cerebri, that of the motiferous portion of the lower maxillary branch of the trigeminus by Meckel, Haller, Wrisberg, and Vicq d'Azyr, the tuber annulare, and that of the abductor and hypoglossal by most authors again, the crura cerebri; so that it is only with respect to the regular nerves among those now under consideration that the doctrine above inculcated generally holds. It has been shewn, however, by Gall, who was one of the first to promulgate this doctrine, that the motor oculi is traceable to the anterior column of

the medulla oblongata—the summit of the spinal cord; by Santorini, Winslow, Soemmering, Bell, and Mayo, that the motiferous portion of the lower maxillary branch of the trigeminus arises from that portion of the same organ which is opposite to the corpora olivaria; and by Bell and others that the abductor and hypoglossal nerves originate in those portions of this organ which are opposite to the corpora olivaria and the spaces between them and the corpora pyramidalia. Whatever may be the case, then, with respect to the other cerebro-spinal nerves, it is certain that all those which minister to the voluntary motions are spinal and not cerebral; and, indeed, independently of autopsy and analogy, the simple fact that in a general palsy affecting the regular nerves of one side of the body, the proper motiferous nerves of the same side, and not of the other side are usually involved, renders it pretty clear that they all arise from the same organ; since, had the former arisen from the spinal cord—that is to say, below the point of discussion between this organ and the brain—and the latter from the brain—in other words, above this point—it is obvious that if the former had been palsied on the right side, the latter would in all probability have been palsied on the left, and vice versa. But to this subject further allusion will be made in future.

(*b*) It has elsewhere been explained that the ophthalmic ganglion, whence the bulk of the ciliary nerves arise, may be presumed rather to send filaments to the motor oculi and ophthalmic branch of trigeminus, than to receive filaments from them.

when, as in asthma, we respire by volition, or when we temper this process according to circumstances, we use the sub-occipital, cervical, dorsal, and lumbar nerves for this purpose. When we sigh, or yawn, or hiccough from either sympathy or passion, as is generally the case, the action is effected by means of the intercostal and phrenic nerves, acting simultaneously, in the second case, with the respiratory portion of the facial, and when we sneeze, groan, scream, sob, laugh, or cough from these ordinary stimuli, we do so by means of the abdominal nerves, together with the respiratory portions of the pneumogastric as distributed upon the larynx and other parts; but when, on the contrary, we effect these processes voluntarily, we employ on the one hand the sub-occipital, the cervical, and dorsal, and on the other the lumbar nerves, together with the motiferous portions of the facial and pneumogastric nerves for that purpose. Again, the processes of receiving aliment and transmitting it to the pharynx, of excreting the stools and urine, and of copulating, as excited by the usual stimuli of sympathy and passion or instinct, are effected by the agency of the respiratory portion of the facial, the glosso-pharyngeal, pneumogastric, abdominal and other respiratory nerves, but as exerted by volition, by the motiferous filament of the lower maxillary branch of the trigeminus, the motiferous portion of the facial, hypoglossal, sub-occipital, cervical, dorsal, lumbar, and sacral nerves. As the involuntary motions of the nostrils also, as well as of the eye-brows and features of the face generally, and their motions are usually involuntary—depend upon the respiratory portion of the facial nerve, so their voluntary motions depend upon the motiferous portion of the same; and as the usual involuntary motions of the eye-lids—as far at least as closing them is concerned—depend upon the respiratory portion of the facial nerve, and those of the eye-balls upon the pathetic nerve, so the voluntary motions of both depend upon the motiferous portion of the facial, the motor oculi, and the abductor. On the contrary, to the motions of the lips and tongue, as instrumental to whistling, whispering, and speaking, the ordinary stimulus is volition, and their processes are consequently effected respectively by the motiferous portion of the facial nerve and hypoglossal nerve. The same is the case with those of the nostrils, eye-balls, and external ears, which are subservient to the proper functions of these several organs, and they are effected accordingly by the motiferous portion of the facial, the motor and abductor oculi, and some of the cervical nerves; as well as with those lastly which minister to the various movements of the head, trunk, and limbs, which are excited therefore by the sub-occipital, cervical, dorsal, lumbar, and sacral nerves.

II.—The proper motiferous system of nerves, and that of the motiferous portions of the regular nerves, are in immediate union by their central parts with the proper sensiferous system, unlike the respiratory system, which is quite distinct from both; and it is hence easy to understand why, while the operations of the respiratory system are independent of those of either of the other two, these latter should in general act, as during watching, and cease from acting, as during sleep, almost simultaneously, as well as why each is in general more or less involved in cerebral apoplexy, and all general diseases affecting the other. This union, however, is not so intimate but that either may, under certain circumstances, continue in action or have its action suspended independently of the other; and, indeed, we are all conscious that, in the gradual processes of falling asleep and awakening, the function of sensation in the one case is longer maintained, and in the other is sooner restored than that of voluntary motion. The phenomena of palsy and incubus also abundantly prove that the failure of these two functions is by no means always in the same degree or even necessarily coincident.

III.—The proper motiferous nerves also, and the motiferous portions of the regular nerves also arise from a part which is directly continuous with the bulk of the brain, again unlike the respiratory nerves, which arise from a part not continued further than the tuber annulare; and it is thus easily explained why the action of the former systems, unlike that of the respiratory, should continue in general only during the action of the brain, and be suspended during sleep and coma, in which volition is intercepted, and why, as already observed, it should be commonly in a greater or less degree involved in the morbid conditions of that organ. Like the sensiferous system, however, the brain may be in action without the motiferous system, as in palsy of voluntary motion alone, in incubus, and in trance, or the last-mentioned system may be in action without the brain, as in somnambulism and walking catalepsy, as well as in palsy of sensation alone, combined with cerebral apoplexy; and numerous are the diseases which show that lesions of either the motiferous system of nerves or of the brain may excite the one quite independently of the other (a).

IV.—The inferior animals are found in general to possess motiferous nerves precisely corresponding to the voluntary motions which they severally perform; and these nerves, as well as their common source, are observed to be in general large in proportion to the force and energy of these motions. In the greater number of the invertebrate tribes,

(a) The following tabular view of the state of the anterior columns of the spinal cord,

the motions of which appear to be more frequently sympathetic or instinctive than properly voluntary, and the sensations of which are not perhaps very acute, the bulk of that portion of the nervous apparatus which corresponds to the distinct cerebro-spinal system of vertebrated animals is, perhaps, rather respiratory than either motiferous or sensiferous, and consists principally of nerves corresponding to the glosso-pharyngeal and pneumogastric—but it is impossible in them to draw any precise line of demarcation between these three departments. We know only that nerves for motion proceed in them to the tentacula, the legs, the tail, and other organs; but whether these nerves be respiratory or proper motiferous—in other words, whether the motions which they effect be sympathetic or instinctive, or properly voluntary, we are incapable of determining. In the vertebrated tribes, on the contrary, the voluntary motions are more easily distinguished from the involuntary, and in them accordingly we meet with motiferous nerves in the same degree distinctly developed. Thus, in such tribes as have the eye-balls moveable, as there is a pathetic nerve for its involuntary movements, as well as for those of the iris, so there are a moter oculi and abductor for such as are voluntary; and it is remarkable, that in those fishes in which the iris is a voluntary muscle, it derives its chief nerves directly from the former of these (*a*). As again they have a glosso-pharyngeal nerve for the instinctive process of taking aliment, so they have a motiferous portion of the lower maxillary branch of the trigeminus for the voluntary movements of their jaws; while, having no voice, and consequently never using their tongue in any attempt at articulation, they are quite destitute of a hypoglossal nerve. The same correspondence is observable, on the one hand, between the other involuntary motions of fishes and their pneumogastric nerve, and, on the other, between their other voluntary motions and the motiferous portions of their regular nerves; and if we follow these relations through the tribes of reptiles, birds, and mammals, we shall find this correspondence between the voluntary movements of each, and the development in them of the motiferous nerves, equally well maintained. How much greater, also, is the relative size of the spinal cord—*anterior and posterior columns collectively*—of brutes than of man has been already noticed—a circumstance which strictly corresponds with the greater force and energy of the voluntary motions as well as of the sensations, as contrasted with the intellectual operations, in the former than in the latter.

V. It would be reasoning in a circle to adduce the similarity in structure of the respiratory and motiferous nerves first, as a proof by analogy of the former being the channel of sympathy and passion or instinct, upon the presumption that the latter are that of volition, and afterwards as a proof by analogy of the latter being the channel of volition upon the presumption that the former are that of sympathy and passion or instinct. Taking it as abundantly established, however, by other circumstances, that the office of the motiferous nerves is what is here ascribed to them, it was quite allowable to bring forward this similarity as an argument for attributing an analogous office to the respiratory nerves; and it is not less so, assuming it as if not proved, at least rendered highly probable by other circumstances, that the respiratory nerves do perform the office which has been assigned to them, to adduce this similarity as a further corroboration of the fact already established with respect to the motiferous.

VI. The same remark may be extended to the further analogy between these two systems of nerves in their competency to convey the galvanic aura—as calculated to establish the office of either—that if other reasons exist for regarding the one as the channel of volition, while the other certainly is not so, this analogy may strengthen one opinion, that this other is the channel of some analogous power; and again, if we have good reason, from other circumstances, to believe that the latter conveys sympathy and passion or instinct, while the former certainly does not, we may fairly employ this analogy to strengthen our belief that it conveys some power of a similar description.

of the posterior columns, and of the brain, in the various affections in which they are severally or collectively involved is, perhaps, an approximation to the truth.

	<i>Anterior Col. of Sp. Cord.</i>	<i>Posterior Col. of Sp. Cord.</i>	<i>Brain.</i>
In natural watching	Active.	Active.	Active.
In somnambulism and walking catalepsy	Active.	Active.	Inert.
In palsy of sensation alone	Active.	Inert.	Active.
In palsy of sensation alone, with cerebral apoplexy	Active.	Inert.	Inert.
In palsy of voluntary motion alone, and in incubus	Inert.	Active.	Active.
In palsy of voluntary motion alone, with cerebral apoplexy	Inert.	Active.	Inert.
In palsy of both voluntary motion and sensation, without cerebral apoplexy, and in trance	Inert.	Inert.	Active.
In palsy of both voluntary motion and sensation, with cerebral apoplexy, and in natural sleep	Inert.	Inert.	Inert.
(a) Bellingeri.			

REMARKS

ON THE

TRIAL OF ROBERT REID,

FOR THE MURDER OF HIS WIFE,

BEFORE THE HIGH COURT OF JUSTICIARY,
AT EDINBURGH,*On the 29th of June, 1835.*

By JOHN FLETCHER, M. D. F.R.C.S.E.

LECTURER ON PHYSIOLOGY, AND ON
MEDICAL JURISPRUDENCE.*(Concluded from page 107.)*

5th. From what has preceded then it seems fair to doubt, if not expressly to deny, that there was, in this case, any real *ecchymosis*, any escape of coagulated blood from the discoloured parts, or any rupture of the jugular vein at all. The next point to be considered is the alleged fracture and dislocation of the vertebra dentata. For the sake of the non-medical public I must explain that the second vertebra of the spine, or vertebra dentata, sends upwards from the fore part of its body a tooth-like appendage, called the *processus dentatus*, which is received into the fore part of a ring, formed by the first vertebra or atlas, so that a blow inflicted upon the vertebra dentata from behind might, by driving forward its body, snap off this appendage against the fore part of the margin of the ring of the atlas, and thus allow the vertebra dentata to slide out of its natural situation. It is this which is presumed to have occurred in the present instance, and to have been the immediate cause of death, by the pressure thus made upon the spinal cord. But—to say nothing at present of the latter point—what evidence have we that the vertebra dentata was in fact fractured and dislocated? Were the bones in question forthcoming, as they should have been, at the trial; or, if not, what had become of them? It is hardly credible that it was coolly confessed that one of the *medical* gentlemen on whose testimony the case for the prosecution principally rested had, with a degree of carelessness perhaps unexampled in a judicial investigation of such moment, thrown them away, after their removal from the body by the other, “*with a parcel of beef-bones*!”—a slight specimen of the care and attention with which we may presume the other parts of the proceedings, even supposing him to have been otherwise competent to the office, were conducted. The best evidence of the fact of the fracture, as well as of the state of the bones, whether healthy or diseased (a circumstance, as we shall see directly, of vital importance) was thus withheld, and the prisoner was deprived of the advantage which might have resulted from their production. Had they been exhibited in court, and examined by careful and competent persons, disease might have been detected, and the fracture, if there really were any, traced to that cause.

But allowing that the bone was really fractured and dislocated, either at the time when it was described by Dr. Forbes on the trial as so found, that is to say, between nine and ten o'clock on the Monday morning—*forty-eight hours* after the supposed murder—or at the subsequent exhumation of the body on the Friday*; is this fact not as easily reconcilable with the presumption that the accident took place after death, as that it was the cause of the fatal event; nay, is it not even more easily reconcilable (supposing the evidence of the *ecchymosis* to be disallowed), with the former presumption than with the latter? When the corpse was first found, at half-past two o'clock on Saturday, the position of the head was, if not quite erect, as stated by the witness Ness, at any rate only a little inclined backwards and to one side, as deposed by Chisholm and Manners; “*just like a usual corpse*,” as remarked by Ness, who had been accustomed to stretch dead bodies, “*and not the least like us if the neck was broken*,” and it further appears, from the evidence of Young and Chisholm, that the head did not change its position when the body was shaken by the hand of the latter applied to the shoulder, with so much force as to change the position of the hand which was upon the floor, so as to turn the palm upwards. Is this consistent with the presumption of a fractured and dislocated neck; nay, does not Dr. Forbes himself admit that “the head would have dangled, when the shoulders were shaken, if fracture and dislocation had previously existed?” It is true the rigidity of death might have prevented this, and, had the alleged injury been received when the body was recumbent, so that the head was prevented from assuming the dangling position natural after such an occurrence, might have held the head in the posture described even under this discipline. But, not to recur to all that has been already said against the probability of such rigidity having taken place at this time, the body was, in fact, *not* rigid—the neck, the arms and legs, and the whole body were perfectly flexible, as already stated—the neck in particular so much so, as to allow of the head being immediately placed without any difficulty on a chair, as was done by Cherry Manners, who raised it by the chin and back part, and must have noticed any preternatural looseness of the neck; had such

* From the medical report made by Dr. Forbes and Mr. Williams to the sheriff on Monday, the 22d of September, it appears that the *dislocation* alone was discovered at this time, the *fracture* being mentioned for the first time in the report of Friday the 26th, the discovery of this having apparently taken place only on the body being disinterred and the bone removed: but this is only one of the numerous inconsistencies and anomalies with which this memorable case abounds.

existed. The fracture and dislocation of the neck then had not taken place at this time, and could not therefore have been the cause of death. Nor was this accident discovered at eight o'clock on the evening of Saturday, when the body was examined by Mrs. Fife, Mrs. Thomson, and several others; nor at eleven o'clock, when it was re-examined by Mrs. Fife, Mrs. Thomson and James Fife, in company with Bailie Walker and Williams. Williams indeed pretends to have detected it on the Sunday; but he certainly never stated his discovery either to Bailie Walker or to Dr. Forbes previously to the examination at which he was present with the latter on the Monday; and Dr. Forbes in his evidence sneered at the idea of Williams having before that time entertained the least suspicion of it. And in the mean time how had the body been tossed about on chairs, and beds, and stretching boards, and how had it been mangled! To say nothing of the probability of this accident having occurred during some one or other of these numerous examinations by unskilful persons, it appears that no adequate precautions were taken by the authorities to prevent access to the room in which the corpse lay in the intervals. No seal was placed on the door, as it should have been; and the key was left in an adjoining apartment, at the command of any body who, in idleness or malignity, might choose to tamper with the corpse. And with respect to the mangling, let us remember that on the Sunday the head had been more than half cut off, as appears at least from Dr. Forbes's account of one of Williams' incisions, "that it extended from one jugular vein to the other—as deep as it would go—*close to the bone*—as far round as the angle of the jaw!" No wonder that Dr. Forbes noticed on the Monday, when he saw the body for the first time, the "looseness of the neck;" and he was hence led to suspect a fracture of the processus dentatus, and a dislocation of the second vertebra upon the atlas, although he appears to have taken no means of verifying his suspicion, except that of thrusting his fingers into the chasm aforesaid, when he detected, on making the head revolve, such "a rasping and grating" as confirmed him in his conjecture. Is this all that an accomplished surgeon would have done on such an occasion, and would such a one have allowed the body to be buried, and subjected to the further violence of exhumation four or five days afterwards, before the alleged fact was properly established? It is extremely doubtful, as remarked by Professor Lizars, whether such an injury as this could possibly be ascertained by the means first employed, some diseases of the bones being competent to produce a very similar sensation to that above described*; so that we have the additional

probability of the alleged fracture and dislocation having in fact taken place during the disinterment—perhaps one of the most common causes of this accident. The presumption is, as will appear more fully in the sequel, that the woman had laboured under a disease of the upper cervical vertebræ—a presumption which is in strict accordance with the only one hitherto admitted, namely, that she was predisposed to spasmodic affections—and that the repeated acts of unskilful and perhaps wanton violence, to which the body was subjected after death, had produced the injury in question. I do not require to be told that such a fracture and dislocation of the vertebra dentata is not a common accident after death, or that it is often in vain that we attempt to fracture the processus dentatus in subjects brought into dissecting rooms. Such a fracture, however, does sometimes occur even when the bones are sound; and the experiments made to effect it would perhaps have been more frequently successful had the head, as in this instance, been half cut off as a part of the process. At any rate when the bones are diseased, as was probably the case in this woman, it not unfrequently occurs even spontaneously, and may easily be supposed likely to result from much less handling and mangling than was in this case employed. Let those likewise who ridicule the idea of this occurrence, and represent it as next to impossible to effect a fracture of the processus dentatus in the dead body, take care that they do not, like green logicians, prove too much for their purpose. For if, in the dead body, it is *next to impossible* to effect it, provided the bones are sound, in the living body, when the resistance of any injury is so much greater, and particularly in a person lying in bed—as is presumed to have been the case in this instance—when the resistance of any force calculated to effect a change in the relations of the bones of the spine would be of course immensely increased, it may be presumed to be *entirely so*: consequently Reid could not have murdered his wife by this means if the bones had been sound, and if they were otherwise, the occurrence of this accident is no evidence of violence at all. But to return to the facts of the case. It is asserted that the processus dentatus *was* in this instance fractured, and that the bone, when at length removed from the body, was found to be perfectly healthy; but upon what evidence does the latter fact rest? Dr. Forbes says that "the bones were sound, as far as he could see," and Professor Christison, that "no material disease could exist if the bones appeared sound;" but with how much greater justice was it asserted by Dr. Robertson that it would require minute examination, and perhaps even maceration, to ascertain the presence of certain diseases which would render the bones preternaturally frangible. But the bones in this case were not particu-

* See Note, p. 53, line 1.

larly examined, as confessed by Dr. Forbes, at the time they were removed; and, before he had a second opportunity of seeing them, had been tossed away by his colleague with a parcel of beef-bones! And with what degree of care was the state of the contiguous parts and of the rest of the body investigated? No notes whatever were taken during the examination. The periosteum or membrane covering the bone, on the surface of which Professor Christison admits that "blood should have been found had the fracture occurred from violence inflicted during life"—the vertebral canal, which would in all probability have manifested further marks of the injury—and the spinal cord, from the effects upon which alone such an injury could have proved fatal—(will it be believed?) were not examined at all. The examiner "could not say whether the jugular vein was cut through or not." None of the internal organs, with the exception of the brain, which appeared healthy, were ever thought of. Almost the only part looked at, except the aforesaid reputedly sound bones, was the transverse ligament which confines the processus dentatus, and which was *not* ruptured. "No extravasated blood," says the examiner, "was seen more than in an ordinary dissection." And yet this gentleman still maintained "that the fracture of the processus dentatus was the cause of death;" and others, who had expressed an opinion to the same effect perhaps before they were aware of the extreme slovenliness of the proceedings on which it was founded, did not hint at a doubt or qualification of this opinion, when that slovenliness must have been so manifest, but continued to cling to the dogma that there was "no rational way of accounting for these injuries except by a blow," and that "Mrs. Reid had died by violence!"

6th. The finding of the axe in the prisoner's room, somewhere about the grate—the very last place, by the way, where he would in all probability have put it, had he made it the instrument of murder, as it would of course be the first place where such an instrument would be sought for—is of no importance, otherwise than taken in conjunction with such manifestations of violence as might be supposed to have been inflicted with such an instrument, the evidence of which is so inconclusive. I may just observe however that it must have been an axe of unequalled powers if it could, at one blow, produce an extensive *ecchymosis* under the right ear, across the shoulders and down the back as far as the loins, a rupture of the right external jugular vein, "the resemblance of a blow or a concussion" behind the left ear, and a fracture and luxation of the vertebra dentata; and the presumption of more than one blow, or even of one blow, having been struck with such an instrument is inconsistent with the non-appearance, particularly in a weak, ema-

ciated subject like Mrs. Reid, of the least abrasion or puckering of the skin, as distinctly deposed by Mrs. Chisholm, Mrs. Ness, Mrs. Fife, and Dr. Forbes himself. The blunt extremity of the axe produced in court was bounded by four pretty sharp angles, and there was in one corner of it when found, as noticed by Dr. Forbes, a *portion of dust remaining*. It could not therefore have come down flat; and how an instrument of this kind could have inflicted a succession of immensely forcible blows, or even one such blow, coming down obliquely on the body, without leaving any external traces of its action, I am at a loss to conceive. Moreover the blow or blows are presumed to have been inflicted while Mrs. Reid was in bed, lying probably on the right side, a posture which, from the plan of the apartment exhibited in court, would have brought her face to the wall, so that the man must have stood behind her while inflicting it; and how he could possibly, in this situation, so apply an axe to her body as to produce, I do not say all the injuries, but any one of the injuries in question, is to me equally incomprehensible.

So much then for the validity of the evidences of any violence whatever having been offered to this woman, constituting in this case the *Corpus Delicti*. We have seen that, of these reputed evidences, the majority are founded on presumptive facts, which not only hinge on statements so questionable as to be altogether unworthy of credit, but are inconsistent, as well with one another, as with common sense; while the remainder, even if the facts on which they are founded be admitted, furnish no evidence at all. The proof of the violence being so defective might perhaps supersede the necessity of entering at all into the *moral circumstances* of the case, from which it was inferred that Reid was the inflictor of that violence; since where there is no crime, there can of course be no criminal. It seems proper however, as great importance is attached by some people to these circumstances—and they certainly would, if really valid, add weight to the presumption, in a doubtful case, of violence having been committed—to show that, in this instance, they are not such as to add either proof or probability to this presumption.

7th. It appears from the evidence of Isobel Young that the prisoner was in the habit of cursing and swearing at his wife, "of calling her a dirty brute, and telling her to stand out of his road," and of using threatening expressions towards her; from that of John Arnot, the brother of the deceased, that on one occasion, he told her to go home "or he would break her neck;" and from that of Mrs. Fife, that, at another time, he desired her to hold her tongue, "or he would rise and choke her." But how continually coarse and sanguinary expressions like these are employed by persons in the lower ranks of life, and with ill-regulated minds, on every trivial

provocation, without any deliberate purpose of mischief, must be known to every body; and when we reflect how frequent and grievous were the occasions of irritation which this wretched woman gave her husband by the filthy practices resulting from an infirmity to be in future alluded to, we may easily conceive that he would now and then express himself in no measured terms towards her. But his demeanour might be nevertheless on the whole any thing but ferocious; and indeed it is admitted by Isobel Young, as well as deposed by Mrs. Crichton and others, that when his wife was ill, as already stated, a few weeks before her death, he behaved to her with the greatest kindness and attention. Mrs. Crichton further states that Reid and his wife always appeared to her to live together "on very good terms;" and Henry Russell says, that he saw them "standing cracking together in a friendly manner, and him patting her on the shoulder," on the very evening of the day before the supposed murder was committed. If *an ill tongue* and the horrible menaces sometimes employed by persons like Reid were in all cases to be taken as indicative of the *animus* by which they were actuated, there are few inhabitants of our closes and wynds who would stand clear of an imputation of murder, on any occasion of death which took place among their associates.

8th. But, according to the witness Chisholm, Mrs. Reid was accustomed to complain that Reid did actually sometimes strike her on the head; the witness Arnot deposed that he had heard her say, "He's aye knocking me on the head, and he'll kill me some day;" and the witnesses Isobel Young and Mrs. Fife stated that she was in the habit of crying out as if struck, and that about twelve o'clock on the night before the supposed murder, she was heard, soon after he had told her to "lie yont," or nearer to the wall, to exclaim, "Don't hit me on the head—take my life at once." It is extremely singular however that no one of the above-mentioned witnesses, nor any other of the numerous persons who appear to have lived almost in common with Reid and his wife, deposed to ever having *seen* him strike her—they only *heard* her occasional complaints and exclamations; and if it be admitted that she had a disease of the upper cervical vertebrae—as already supposed, and as will in future be rendered more than probable—since it is a characteristic mark of such a disease for the sufferer to feel acute pain, and to apprehend fatal injury from the slightest collision of any thing with the head, all these may easily be accounted for without the presumption of her having suffered any actual violence. The last and most appalling of these expressions was used when the parties were in bed together with their child, and when it is not only extremely improbable that any violence whatever was employed, but certain that it was not of a murderous description, since she was

certainly alive, and was heard to speak, as appears from the confident statement of Isobel Young, at nine o'clock on the following morning. And if in this instance she cried out murder, when probably all that she sustained was a slight push in order to make her lie further off, or perhaps to awaken her, and prevent the common effects of the infirmity just spoken of*, all her complaints and exclamations at other times sink into nothing: she was probably worse at this time than common, from the fatigue which, as we shall presently find, she had undergone the preceding day, and therefore more sensible of the least impulse, and more apprehensive of danger than usual. It appears further improbable, from Reid's general character, that he was really cruel to his wife. The witness John Piggot, who had known Reid for several years, and lived in the same "land" with him, "never saw any thing but harmlessness about him;" and Mrs. Lenny who had been for some time his neighbour, never regarded him as otherwise than "a simple man." And indeed Mrs. Reid's complaints of him do not appear to have been very consistent, since Mrs. Finlay or Smith, to whom she seems to have unfolded all her troubles, distinctly states that "she never complained of her husband."

9th. And with respect to the agitation of the prisoner when taxed with the murder, soon after the discovery of the corpse, what does this amount to? To Young and Manners, in answer to their interrogatories as to whether he had not done any thing to his wife, he replied, "No, as sure as God is in heaven;" but when taxed with the murder by John Arnot, the witness and Mrs. Tod "thought he turned a little white." And what if he did? There is many an innocent man who would have done the same under a similar imputation. It was after this that he used the ambiguous expressions, in answer to a question by Mr. Grieve of what complaint his wife had died, "We must not tell all things," and "all things go as they come;" and, supposing these words to be ambiguous†, what was more natural than for a drunken man, as he then was, under such circumstances, to affect great circumspection in his discourse, and to have recourse to the wise words and dark sayings in question? The answers savour much more of the mock solemnity of a fool, than of the crafty purpose of a villain, and are very different from what we should expect from one who had committed murder, and who would have felt that such expressions were calculated to excite, not to

* This is the statement made by the prisoner, in his declaration before the sheriff, on the 27th of September.

† It has been imagined that Reid, in these replies, alluded to the infirmity of his wife, above spoken of; and in this sense the words are simply absurd—they cease to be ambiguous.

allay suspicion. And a similar remark may be made with respect to his subsequent declaration of satisfaction at being released from his wife. When first aware of her death he was very much affected and "concerned-like," as stated by Mrs. Crichton, Mrs. Lenny, William Duncan and others; and, according to Mrs. Tod, shed tears so copiously that they streamed down his cheeks. Now these tears were either real or affected. If they were real, it is most improbable that Reid had committed the murder imputed to him; if they were affected, it is most improbable that he would, had he been a murderer, so soon afterwards have made the above declaration, which was so inconsistent with them. The fact appears to be that the tears which the man at first shed were the instinctive expression of emotion at the loss of a woman to whom he had been united for twenty-four years, and that the declaration afterwards made sprung from a rational conviction that this paralytic, miserable woman had really been, as he said, "a burden to him and to every person else." That these tears could have been immediately commanded by a guilty man, or even that they would have been sought for by one at the time very much intoxicated, is almost incredible; but admitting that he possessed sufficient self-possession and art to produce these tears, he would surely have possessed too much so soon afterwards to pull off the mask, and to make a remark, not only so inconsistent with the farce which he had been previously playing, but so well adapted to strengthen any prejudice which might exist against him. His subsequent expression to Mrs. Tod of regret at not having treated his wife worse than he had done is precisely what might have been expected from a low, drunken fellow, when goaded by the manifestations of suspicions which he felt that he had not deserved, but the last thing in the world to be expected from one who had actually committed the murder of which he was suspected.

10th. And the absence of any distinct purpose of deception is equally obvious from his denial at one time of having been at home at two o'clock, which, so far from tending to criminate him, serves, in my mind, rather to exonerate him from any suspicions which the rest of his demeanour might have excited. It appeared in evidence that it was in immediate consequence of this visit to his house at two o'clock, that he applied to Mrs. Tod to come over to the assistance of his wife; so that his assertion of not having been at home at this time, which—as connected with the peculiar posture in which the corpse of his wife was found, and in which he pretty certainly then placed it—has been considered of so much importance, carried with it its own refutation. He was drunk and agitated, and neither knew at the time what he was doing, nor afterwards what he had done; and while this falsehood is thus easily attributable to the

general perturbation into which his own intemperance and this unfortunate business together had thrown him, it indicates an absence of *dole* in this matter quite incompatible with the deep design which he is presumed to have displayed in other respects.

11th. Again, how perfectly natural was the solitude of Reid, occupying, as he did, with his child a single, miserable room, to have the loathsome remains of his wife as soon as possible removed, or at least concealed in a coffin. Was it to be expected that he should submit a moment longer than was necessary to be surrounded by the horrors of death, in addition to the filth and vermin by which he had been so long annoyed and exasperated? It is all very well for persons enjoying every comfort and luxury, and who can *afford*, not only to cherish every finer feeling, but to subscribe to all the pomp and circumstance of civilized life, to talk of the coarseness and indecency of Reid's conduct in seeking so soon to immure his deceased wife, and to infer from that a presumption that he had murdered her; but this circumstance can have no weight whatever on the minds of persons in the least degree versed in the history of the squalid wretches of the class to which he belonged. He thought only of his abject misery, and the means of alleviating it.

12th. Lastly, with respect to his alleged confession of the murder to the officer who apprehended him on Monday, on his return to Dysart after his visit to Edinburgh. When first apprehended he manifested great surprise, and asked, "What is't—what is't?" And it was proved in evidence that he had been urged to this confession by the hope so unwarrantably held out to him by the officer, who desired him to say "he had got a dram, and confess he did it, and he would get off," while he was "sure to be hanged," he was told, if he denied it. This is distinctly stated by Mrs. Gray or Smith, the jailor of Kirkealdy, and by Michael Slater, sheriff-officer. Reid was a weak, muddled creature, in the hands of officers of justice—alone and unadvised—and he believed them. Accordingly when he was examined before the Justice of the Peace on the same day, he positively denied murdering his wife, and mentioned the reason why he had made a different statement to the officer. The mere circumstance indeed of his having returned from Edinburgh to the seat of the supposed murder, when he might so easily have absconded, is a presumptive proof of his innocence. Had he been a murderer he either never would have returned, or, had he returned, he would have been better prepared to meet the snare thus laid for him, and to have escaped it.

Such, then, are the principal alleged moral evidences of Reid's guilt. Singly or collectively they prove nothing more than that he was a poor, stupid creature, who had become an idler and a drunkard from the wretched-

ness of his home, and who lived on no worse terms with his wife than thousands of others in the same rank of life, who have not the same excuse for their dissipation. I have said nothing of the opportunities which he had for the commission of the crime with which he was charged, since the circumstance of his having had these opportunities does not in the least strengthen the presumption against him—it only deprives him of the strongest possible argument on the opposite side. That abundant opportunity was afforded him for committing the murder in the manner supposed at a little after nine o'clock, and of placing the corpse in the attitude described at two, is unquestionable; but his having had these opportunities of doing what is imputed to him furnishes no manner of proof that he availed himself of them. And when we reflect that the neighbours, and in particular John Fife and his wife, who could distinguish every sound in Reid's room, and were taking their breakfast at nine o'clock, heard no sort of noise or scuffle—that Reid's little girl, a child of seven years old, was in the apartment during the whole time of this visit, and was met immediately afterwards by Isobel Young on the stairs with her father, not betraying the least agitation—and that Reid, after remaining half an hour in the house, left it quietly and composedly with his child*, and, upon rejoining Duncan at ten o'clock, displayed nothing whatever unusual in his manner, the presumption is that such opportunities were not so employed, and that the death of his wife took place at some time between these two periods, from natural causes. Nor is it at all incumbent on those who adopt this opinion to show what these causes were. It is quite sufficient to have entitled the prisoner to an acquittal, to neutralize, as was done, the testimony against him: but when, in addition to this, we find that it was rendered in the course of the trial highly probable, not only that this woman had died a natural death, but that such an event might have been rationally expected almost precisely at the time it occurred, there is surely no one who will grudge him the very equivocal verdict which was passed upon him, while some will perhaps think that the verdict of "not guilty" might have been mercifully substituted for that of "not proven."

* Some stress has been laid upon the circumstance of Reid having, on this occasion, taken the key of the house with him. But it appears that it was not very unusual with him to do so; and it is certainly difficult to conceive why he should have preferred, had he committed the murder, allowing the circumstance of his wife's death to transpire in a manner so well calculated to raise suspicions against himself, to incurring the risk of her being found dead in her bed during his absence, which would have been looked upon probably as a mere every-day occurrence.

It was proved in evidence that the deceased was fifty-six years of age, and accustomed to miserably poor fare—that she confessed to having had an attack of palsy (Tod)—that her head shook—(Ness, Mrs. Fife)—that her voice was feeble and querulous (Mrs. Fife)—that in walking she inclined very much to one side (Young, Crichton, Mrs. Fife and others)—and that she was in the habit of passing all her natural discharges in bed, alleging that she could not help it (Young). She was constantly putting her hand to her head (Arnot), and complaining of pain both in the head (Young, Chisholm, Crichton, &c.), and in the back (Crichton), and was in every respect "a silly weakly woman" (Ness)—"silly both in body and mind" (James Fife). Now what would any medical man say was this woman's complaint? If he were called upon to describe the symptoms of a diseased state of the vertebral column involving the functions of the spinal cord and brain, he could hardly do better—as may be inferred from the evidence of Drs. Robertson and Mackintosh and Professor Lizars—than enumerate those manifested by this unfortunate woman; and her apprehension of the most imminent danger from the slightest impulse affecting her head is further characteristic of the same disease, and leads to the belief that its principal seat was about the vertebra dentata and atlas. But, while we admit these facts, it may be objected to them as furnishing any evidence of Reid's innocence, that the primary cause of the disease which they indicate, as well as the immediate cause of death, might be the violence which she suffered from her husband; but—not to recur to the very inadequate evidence on which the presumption of any such violence rests—it is more than questionable whether any habitual violence could have induced a chronic disease of this description, however competent an individual act of violence might be to occasion death. Further, Mrs. Reid some weeks before her death suffered a spontaneous attack, from which she became speechless (Young, Crichton); the body was quite cold and the limbs stiff—so much so, that it was with great difficulty that they changed her linen—and it was believed that she was dead. Who can doubt that this was an attack of spinal apoplexy, which is quite consistent, as indeed is cerebral apoplexy also, with a perfectly healthy appearance of the brain? Had the woman died at this time, if the fit had seized her in any other than the horizontal posture, who can say in what extraordinary attitude the limbs might have been found; who can question that had the corpse been placed afterwards on the back, livid marks would, after a time, have displayed themselves on the skin of the neck and spine; and where is the improbability that, presuming the attack to have originated in a diseased state of the vertebral column, a very slight wrench or other violence would have afterwards occasioned a fracture or luxation of this part? It was precisely this in all pro-

bability which was destined afterwards to occur. From the attack which she at this time experienced she never entirely recovered. She became more frail, and more querulous (Crichton, Lenny); and what medical man would not now have said that her life hung by a thread, or would have been surprised if she had, at no distant period, a second attack, which would suddenly finish her miserable existence? On the day preceding that on which she died she had hobbled, according to one account (Finlay or Smith), to Colddeans, above Kirkcaldy, more than two miles from her own residence; according to another (Chisholm), as far as Clunie's Square, four or five miles off. She was seen at Kirkcaldy, on her return, by Mrs. Gray or Smith, the jailor, inclining more than usually to one side, "all shaking," and apparently so exhausted that the witness "did not think she could go much further." On arriving at Pathhead, she was seen by Lenny, Finlay or Smith, Henry Russell, and others, who severally deposed that she was on that evening walking so much to one side that one arm almost touched the ground, and the clothes on that side were hanging off the shoulder—that she looked sickly and "gorged"—that she put her hand to her head, as if to support it—that she complained of being very much fatigued, and of the pain in the back being very sore—and that she expressed an apprehension that she had had another attack of "that trouble," and that she was going to die! What assemblage of exciting causes and symptoms could have indicated, in such a subject, a rapidly approaching dissolution, if this did not; and would it not have been to any medical man a matter of greater surprise if she had not been carried off within the next twenty-four hours, than it could be that she was so? It was in the course of this night that she was heard to utter complaints of violence offered to her head, and to beg to be killed outright—exclamations which, taken in conjunction with the immediately preceding symptoms, indicated only an aggravation of her malady; and where is the wonder that, in attempting to rise on the following day, a paroxysm like that which she had recently experienced terminated at once her sufferings and her life? If this woman were murdered, it was, by the most wonderful of all coincidences, almost at the very instant that her demise from natural causes might have been predicted*.

I presume not to determine whether this were or were not the case. Perhaps there

larynx towards the nape, and often to the scapula of the pained side. No external alteration is perceptible, but *firm pressure on the region of the first and second vertebra produces considerable pain*, and thus points out the seat of the disease. The difficulty of swallowing and breathing, and hoarseness increase, alternating with pain in the neck, which seems to fix about the back of the head, and becomes intolerable on moving that part. The head sinks towards one shoulder, the face being turned a little down; for in general the articulations are affected on one side only, and that was the left in seven out of nine examinations after death. If both sides are affected, the head will incline directly forwards. In this state things continue for several weeks or months; and before worse symptoms come on, there is often apparent improvement, freer motion and more natural situation of the head. But the *uneasiness in speaking* and swallowing returns, the pain becomes more severe and extensive, the head falls a little backwards, and sinks towards the opposite side. The patient feels as if the head were too heavy, and he carefully supports it with his hands when he moves from the sitting to the lying posture, or vice versa. This may be considered a pathognomonic symptom of the affection. Another symptom which at this period shows the true nature of the disease, is a peculiar expression of pain on the countenance, which, combined with the position and stiffness of the head, constitutes so characteristic an assemblage of appearances, that it is enough to have seen it once, in order to recognize it again immediately. In the further progress of the case, noise in the head, deafness, giddiness, cramps, and convulsions, partial paralysis, particularly of the upper limbs, loss of voice, purulent expectorations and hectic symptoms supervene. Generally no external change is observable either in the neck or in the nape, and Rust observed in one case only swelling of the affected side, which broke and left fistulous ulcers. But the slightest pressure in the region of the upper vertebrae is acutely painful; and sometimes, in the advanced period of the disease, a grating of rough surfaces is distinctly perceptible when the head is turned. The patient may continue for months in this helpless and painful state, and then dies either from exhaustion and debility, or, which is more frequent, suddenly and unexpectedly." (Medico-Chirurgical Transactions, vol. xiii, p. 406). In commenting upon this account of the disease in question, Mr. Samuel Cooper adds, "In cases of this description the joint between the atlas and occiput is never the only one which is displaced or deformed, unless the disease be very slightly advanced; for the articulation of the processus dentatus

* The following is the description given by Mr. Lawrence, after Rust, of the symptoms attending a displacement of the atlas by disease. "Pain in the neck, becoming more severe at night, or in swallowing a large mouthful, or drawing a deep breath, is the first symptom. This pain affects one side of the neck, especially when the head is moved towards the shoulder: it extends from the

were, as remarked by his Majesty's Solicitor-General, ample grounds for justifying the indictment laid against Reid; but I repeat what I began with, that there never was a case in which the evidence for the prosecution was more meagre, incongruous and disgraceful, while there certainly have been few which developed a concatenation of circumstances in favour of the presumption of the innocence of the accused more full, more consistent, or more satisfactory. The foundation stone of the whole edifice against the prisoner, was the bare word of one who was at once morally unqualified, and legally unauthorised to speak to any medical question whatever—of one grossly ignorant and unblushingly false, and whose only manifestation of common sense was his anxiety, as indicated by a succession of the most pitiful subterfuges, to avoid an exposure to which his shameless usurpation of an honourable and responsible post had subjected him. Not only were the depositions of this man entirely unsupported, but almost every word uttered by his coadjutor goes to disprove what he had asserted. And of what was the next part of the fabric—which, however, without the foundation stone in question could have availed nothing—of what was this composed? Namely of the statements of another, who, however, legally authorised he might be to substantiate a medical fact, or to deliver a medical opinion, conducted the *post mortem* examination, as deposed by all the medical witnesses for the prisoner, in such a manner as not to warrant the slightest reliance being placed upon it in the formation of any opinion as to the cause of death, and to draw from one of them the declaration that he “was quite ashamed of it.” Such was the basis on which the conclusions of the other medical witnesses for the crown were founded, and with this basis their conclusions must either stand or fall. Be it remembered also, that the opinions of the medical witnesses for the crown were founded on proof adduced on *one* side only, while the opinions of the prisoner's medical witnesses embraced the evidence on *both* sides; and a very great number of important facts, such as the total want of discoloration at eight o'clock on the Saturday, the sore on the head, the attack which the deceased had previously experienced, her frail state on the day before her death, and many others—all which should have been taken into account in forming a full and fair opinion on the subject—transpired only or chiefly in the course of the exculpatory evidence. In conclusion, I must observe that, whatever trivial inaccuracies may have been fallen into by the medical witnesses for the prisoner,

with the atlas, and sometimes that of the point of the same process with the occiput, are considerably affected.” (Dictionary of Surgery, ed. 1830, p. 392.)

they sink into less than nothing when compared with the fundamental failures of the opposite party. To omit the barefaced falsehoods above stated, such a display of helpless ignorance, of reckless negligence and of glaring inconsistency as this trial affords is perhaps unprecedented in the annals of modern medical jurisprudence; and, whoever may be the parties who choose to mix themselves up with persons capable of making such a display, they must not expect to be held blameless. In this case I have very unwillingly found myself opposed in sentiment to men for whose talents and acquirements I have a very sincere respect: but no consideration shall ever deter me from forming and acting upon my own opinion; and I hope and believe that the public, now in possession of the real circumstances of the case, will allow that, in this instance at least, the conclusions of these gentlemen were no less justly questioned, than they were successfully resisted.

—o—

SELECT LECTURES,

FROM

M. BROUSSAIS'

Course of General Pathology and Therapeutics;
translated and revised

By JAMES MANBY GULLY, M.D.

LECTURE XII.

Buccal and Pharyngeal Inflammations, continued.

PURSuing our analysis of M. Bretonneau's work we find, that, to actual cases of croup, they give the name of false croups, asserting that such are catarrhs, whereas the fact is, that, being arrested in good time, they have not been fully developed. This method of only beholding diseases when they have reached their greatest intensity is sufficiently convenient for those who use it, inasmuch as it gives them the opportunity of saying to others who strive to arrest disease that they are wrong in supposing they have so arrested it, that it was slight, and would have stopped of itself—a sort of argument not unlike the answer of some patients whose gratitude is at a discount, and who think to acquit themselves by saying that their disease was a trifle, which would have come round of itself. Is not such a proceeding inimical to the progress of science and opposed to the generalizations without which it cannot exist? Is it not putting into practice the baneful art of dissimulation, and is it not impossible to go on reasoning with those who have recourse to such objections? Certain it is that we arrest all manners of disease in our hospital, as do our pupils daily; in proof of which we can produce lists of mortality which are considerably smaller than when we followed the beaten and vulgar paths of treatment. It is, therefore, a monstrous

error to imagine that it is necessary to wait until a disease has reached a certain point before we venture to say that it exists at all. Still they have profited by our advice, since they make every endeavour to prevent follicular phlegmasia of the tonsils from being propagated to the larynx and trachea, and have felt that once there, it can no longer be mastered. Yet, notwithstanding this, they rarely succeed; and why? because they address themselves to it at too late a period; they certainly attack the disease of the gullet by times, but it has already been for some time in another situation. The cases in which they have succeeded are those where it commenced in the most visible point, and that to which topical means were more readily applicable; the other cases, and these the most numerous, have been fatal, and hence the great mortality. But for these different results they are unable to account; nor have they introduced into the discussion of facts all the strictness such discussion demands. The mercurial treatment does not prevent the propagation of the inflammation, as we shall see in speaking of the therapeia of the disease. Here, then, I close my remarks upon the loose manner in which this subject has been treated; should you desire to go deeper into it, you may read, on one hand, M. Bretonneau's work, a work filled with valuable matter, and undertaken with excellent views, but ill executed, without order or logic, and one which, to be a classical work, should be remodelled by some methodical and closely reasoning mind; and, on the other hand, the complete and impartial refutation of it by M. Emangard in his *Traité pratique du Croup*, his *Memoire additionnel au Traité pratique du Croup*, and his *Memoire sur l'Angine epidémique ou Diphtherie*.

Proceed we now to reduce the confusion in which these diseases have been involved; for notwithstanding the pains I have taken to lay open to you the artificial arrangement that has been made of them, I am afraid that your ideas of them may still be obscure. I shall, therefore, strive to exhibit them in a more natural order.

The bucco-pharyngo-laryngean inflammations, like all other inflammations, are primary or consecutive; they do not consist in affections necessarily commencing in one point and finishing in another, this being only observed in specific inflammations, such as small-pox and cow-pox. The primary ones are first developed in the parts mentioned, the mouth, pharynx, and larynx; the consecutive ensue on visceral phlegmasiæ, and make their appearance at the openings of the great mucous membranes, when the deep-seated parts of the same membranes are inflamed. We have already observed, that the external phlegmasiæ are sometimes primary, at others secondary, and the same applies to every part of the body. Hitherto we have only stayed by the primary inflam-

mations, in order that you might more readily remark the mode in which they produce disturbance of the system; we will continue the same process with regard to the inflammations now under consideration, and will class them in the following manner.

1. Inflammations of the tonsils and velum palati, primary amygdalitis and staphylitis, without supersecretion, sometimes phlegmonous and sometimes not. This is the highest degree of inflammation.

2. Inflammations of the same organs with mucous exudation, likewise primary. Examples of this you may find in all epidemics, because the causes that produce these epidemics may have their effects confined to the organs we are now speaking of. You will see in this category various degrees of consistence of the mucus, from the most coherent to the other extreme. You will see these affections subdivided until they have only the name of aphthæ, a disease in which there is no thick and extensive concretion, but small white parcels or granulations scattered over the inflamed mucous surface, with supersecretion of saliva. This affection is not necessarily more consecutive than the others, and is seen without gastritis.

3. Phlegmasiæ of the gums, non-scorbutic, primary, and produced by cold, with or without concretion, common in our military hospitals. It is this disease that made such ravages in the army of Germanicus; now-a-days, when people know how to arrest disease, it is easily seen why it was so murderous, and how it might have been prevented from being so. For a like reason, all those great pestilences, which formerly decimated the human race, might be now considerably weakened, and even be made to disappear altogether.

4. Phlegmasiæ of the pharynx, primary, phlegmonous, or non-phlegmonous, with or without mucous secretion, membranous, or non-membranous, being all different degrees of inflammation.

5. Phlegmasiæ of the larynx, with the same distinctions as the preceding.

Such are the divisions to which we will conform; they include every possible case. For the rest, you may readily imagine that when a phlegmasia of a mucous membrane is violent, it suppresses the secretion of it, and that, consequently, there may be croups or inflammatory swelling without any kind of secretion, just as there are with mucosities and false membranes. When a patient is suffocating, the first thing is to find the seat of mischief and speedily apply to it; this you will be able to do readily, if you keep the above distinctions in mind.

For the present, we shall only treat of these diseases as primary; when you shall have been convinced that they may all be really so, you will be able to read the epidemics with advantage; but I should be putting you in an embarrassing situation,

were I to induce you to peruse their descriptions previous to teaching you how to unravel the confusion of them—it would be nothing but useless erudition and pure chicanism on my part.

The principal cause of these epidemics is cold, which suppresses the transpiration and makes a membranous affection to succeed it. If so many mucous membranes are affected at one time, it is owing to the impress of this agent on a vast surface whose action it stops, and it is a law of the system that on the cessation of action in one organ another supplies its place. Vital action, diminishing or ceasing in the skin, is conveyed to the interior; and if the secretory organs intended for normal eliminations are not prepared to receive it, or, in other terms, if they are unable to sustain an overplus of activity, a morbid condition obtains either in the lungs, in the stomach, or in the organs whose inflammations are now under our consideration; hence the prevalence of these epidemics in humid weather.

We will commence with the inflammations of the mouth, that is, of the gums and interior of the cheeks. These are produced by local stimulation. Dentition is one of the most evident causes in the evolution of both sets of teeth. Various other circumstances, such as dental phlegmasiæ and caries, may also assist in producing them. To these add sialagogues, pellitory, tobacco, chewed or in smoke, acid articles of food, brandy and other strong alcoholic fluids, ill conditioned water, food of difficult mastication, in short, any strong mechanical friction or stimulation. Cold also acts as a cause, by arresting the transpiration, and it acts still more violently in that character if the irritation of the gums previously exists as a predisposing cause. There may sometimes be a state of general congestion of the head and mucous membranes that keeps up these inflammations, and which very few authors have mentioned; when such exists, and suppression of any hemorrhage, of the menses or of epistaxis, an increased inflammation of the gums supervenes. In some cases, we have some ground for suspecting the contagion of gingival inflammation, when, for instance, it occurs in individuals who have made use of the same vessels as those already affected, or when any other kind of contact between them has taken place. This scarcely ever happens unless the inflammation is accompanied with membranous exudation and ulcerations, and even then a direct influence and a certain predisposition are requisite.

The inflammation may break out from the same causes in other parts of the mouth, in the internal surface of the cheeks, and on the tongue; the latter constitutes glossitis, which may be induced by local stimulation, and sometimes exhibit the aphthous and sometimes the phlegmonous character. It may even be followed by suppuration in the

substance of the tongue; this however is rare, in consequence of the small quantity of cellular tissue entering into the organ.

When inflammation of the mouth involves at once the gums, the tongue, and cheeks, and is accompanied with minute white exudations, the name of aphthæ is assigned to it. These exudations are sometimes moveable, and resemble portions of clotted milk spread over the inflamed mucous membrane; at other times they appear as if depressed in the membrane, which surrounds them like a hedge from its own tumefaction and their adherence, and they might be taken for ulcers. Such ulcers often really exist after the fall of the pellicle, and the consequent nudity of the surface. At first sight it is somewhat difficult to determine whether the aphthæ are owing to an exudation and concretion of false membranes, or consist of a superficial ulcer. Besides the causes I have assigned to them, and among which we must not omit cold, they generally require a peculiar predisposition; some individuals are naturally subject to them, either in the membranous or the ulcerative form, and to make specific affections of each of these shades would be folly.

These inflammations once commenced, the mucous membranes are presented in a state of redness or tumefaction. The gums are the most ordinary seat of them, as is also the palate, particularly when they possess a purely inflammatory character, and are allied to plethora, or owing to the suppression of an hemorrhage, &c.; the sanguineous disposition being then pronounced, no ulcerations occur. When the affection is especially owing to cold and local stimulations that have excited the mucous secretions for a considerable time, false membranes edged by a small white rim are frequently formed. The morbid process sometimes goes on to the destruction of the gums, and generates at the root of the teeth (which turn black) a collection of saline matters. Such an inflammation is frequently observed in barracks, where it may be contagious, and where it has got the name of scorbutic gangrene, though no disposition to scurvy then exists; this it is that M. Bretonneau had in view in his treatise on diphtheritis; he even makes use of the word "fegarite" in speaking of it, a word that is not Spanish, but derived from the Greek and Arabian, and which was first coined by Arnaud de Montgarni, a physician of the French army at Madrid during Napoleon's war there. Arnaud thought this disease was contagious, and as at that time they treated it with stimulants that set the mouth bleeding, and there were some serious symptoms, such as sloughing of the gums, luxation of the teeth, &c., he called it scorbutic; meantime it was only a gingivitis badly treated, with excoriation and ulceration of the gums, swelling and bleeding of the parts, fetid white exudation, putrescence and de-

composition of the humours and tissues. But there was no reason for calling this scorbutic; for the same parts in an inflamed and superstimulated condition might undergo similar changes any where—in Paris as well as in Madrid; I often meet it here in men treated as above stated. This is the first form of gingivitis.

A second form is the aphthous, which is more frequently consecutive than the preceding one, but which also may be primary, for I have seen it so; I have even seen persons whose mouths were filled with aphthæ and the mucous membrane considerably swelled, without the predominance of these symptoms in the gums: at the same time there was a copious salivation, which is not always met with in pure and simple gingivitis. This kind of thrush has such relation to mercurial phlegmasia, that I might have combined them in one description, did not the latter belong to another section of our plan, and if it were not moreover distinct, by having no fixed duration, and the possibility of its persisting, notwithstanding all kinds of treatment, so long as its cause continues, and of producing necrosis; whereas, by treating aphthæ by demulcents we cure them.

Patients labouring under gingivitis suffer from thirst, though seldom to the extent of producing fever. If you stimulate inopportunely, it may be succeeded by gangrenous spots, or a purulent collection about the gums, and be propagated to the pharynx and viscera. It is then arrested with great difficulty, as is indeed every inflammation treated improperly in its commencement; particularly if it be situated in organs that are exposed to the frequent contact of external bodies, as in the present instance, where the physician and the patient may, according to their taste and false inspiration, stimulate to the first, the second, or the tenth degree. Thus stimulated, it would be an arbitrary stretch to attempt to assign it a determinate progress: but when not stimulated, it lasts pretty nearly the usual time of mucous inflammations—fifteen to thirty days—and then gets well, after more or less salivation. After it has continued for a considerable period, and has caused atrophy of the gums, the teeth become uncovered, consumed by caries, and liable to fall out in consequence of the ingress of the inflammation into the alveolæ, and the final destruction of their pulpy membrane by suppuration; the teeth, then only holding by the small dental vessels and nerves, loosen and fall out.

There is also a phlegmasia of the gums which dentists consider to be incurable, and which consists in a softened condition of their tissue, with suppuration and fistule: I shall afterwards state my mode of treating this condition.

As regards propagation of gingivitis to the

viscera, it is never seen except when the disease has been improperly treated.

The prognosis bears relation to its duration. When recent it is easily cured, but there is great tendency to relapse. When it has lasted long, has disorganized, or propagated, its importance is meted by the degrees of propagation and disorganization. Persons with pale gums and sound teeth are less subject to it than others. The main point is not to consider the disease as something fatal, or as a pestiferous ray from heaven that strikes indiscriminately.

The treatment is easily comprehended, and is reducible to four principal points.—

1. When the inflammation is considerable, an immediate relief must be given by bleeding, if there be plethora or a congestive state of the head, or by leeches, if the disease be circumscribed, applied externally, or internally; the latter being preferable.
2. After these means come emollient gargles.
3. After these, the withdrawal of solid food and all kind of stimulation that can keep up the disease. At Val-de-Grâce, we put our patients on soup diet, apply leeches around the jaws or lips, or else internally, and make them gargle with decoction of marsh-mallow.
4. When the inflammation has abated, when there is no more heat, but only a habit of secretion, with sponginess, stimulation, or what they call counter-stimulation, may be employed. Then it is that narcotic and astringent washes, muriatic or nitric acid gargles, or those of the chlorurets, styptic salts, superficial cauterization with alum, or nitrate of silver, may prove useful, and speedily accomplish a cure. Have a care to observe well the effects of your remedies, your washes, gargles, &c., diluting if they stimulate too much, augmenting if they do not irritate sufficiently; in short, proportioning the stimulation to the sluggishness or inactivity of the diseased tissues. Bear one fact in mind, that when inflammation has been combatted by antiphlogistics, and still persists, it will tolerate direct stimulation. If there is continuous salivation, we persist in alternately narcotic and detersive gargles, we cause revulsion to the extremities by keeping them warm, we purge if the digestive canal is in good condition for it. Let me ask, in passing, what more we do in mercurial affections of the mouth? Nothing more.

We come to the phlegmasiæ of the isthmus of the throat, and of the velum palati—of the tonsils particularly. The inflammation of these parts is tonsillo-staphylitis, which is exhibited in two forms; one inflammatory without supersecretion, purely membranous or phlegmonous, the other exudative. Let us first consider the former, the highest degree of which is acute amygdalitis, or quinsy. For causes, it has all those that are capable of producing plethora and inflam-

matory affections, such as the suppression of certain evacuations, and especially of hemorrhages. Its predispositions are youth, the sanguine temperament, stimulating and too nutritious diet, producing blood that is either too copious in quantity, or stimulating in quality. It often co-exists with a heated state of the stomach, which is not inflammation, though so near to it, that the slightest thing will make it commence. The exciting causes are also stimulating causes, and they produce their effects when the patient can no longer bear stimulation: a sudden cold of the feet or head, a fit of impatience or anger, the suppression of an hemorrhage, in fact, anything that gives the system a stimulating shock more energetic than usual, determines an inflammatory amygdalitis.

This disease is readily known by the rapid and excessive swelling of the tonsils, which form a tumour and sometimes grow to such a size as to proceed backwards and downwards into the pharynx, depress the glottis, and in a short time render the respiration laborious and the voice nasal. The countenance is anxious: dissemination of the irritation by the nerves is carried to a great extent, the fever is sharp, the pulse full and frequent, the heat exalted, the skin halituous: the acute pains in the throat render deglutition exceedingly painful, inducing contorted, or even convulsive movements at the time of swallowing. On depressing the tongue we observe the tonsil red and swollen, and nausea is readily produced; the mouth is opened with great difficulty and pain; a *speculum oris* may be used for the purpose of assisting its opening. The consequences of this kind of angina may be serious; the most serious of all is that when the tonsillary swelling is such as to make them fill the entire cavity of the pharynx, press down the epiglottis upon the glottis until suffocation takes place: cases are met with in which this might readily occur, so rapid is the increase of the swelling and the dyspnoea; the patient is then obliged to open wide his mouth in order to breathe, and the face becomes livid.

There are other shades in which the tonsils stop swelling at a certain point and does not interfere with respiration; in these cases it often goes on to suppuration. It may happen however, that while one tonsil is suppurating the other goes on swelling—a thing that sometimes happens in individuals that have had several attacks of quinsy, who are of a lymphatic constitution and whose tonsils were already gorged and enlarged, on the advent of the acute inflammation. For the rest, death can only occur from suffocation; for when the phlegmasia goes on to suppuration, no fatal termination can take place. After being in the back of the throat it may certainly, if not arrested, extend to the viscera and become predominant then: but that is a general fact that

applies to all inflammations whatever. The danger is from suffocation, and the prognosis should be directed by the degree of tonsillary tumefaction; if they feel large to the finger, extending down to the throat, if the patient is restless, gasps for breath, and is at times seized with convulsive movements, and has swelling of and livid face, the peril of his position cannot be mistaken. We next proceed to the treatment.

—o—

MANUAL OF OPERATIVE MEDICINE,

BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

—

CHAP. V.—OF REUNION.

THE wounds which result from operations are sometimes left to suppurate; sometimes attempts are made to unite them by the first intention. In the latter case, position, bandages, agglutinative plaisters, and sutures are employed. The two first of these do not form part of our subject*.

SECT. I. *Agglutinative Plaisters*.—Some are applied cold; others require to be softened by heat, over a candle or brazier. The English silk sticking-plaister requires to be first moistened with saliva.

In the *ordinary mode* of proceeding, the borders of the wound being approximated by an assistant, the surgeon begins by placing a strip of plaister on one side; then supporting the opposite border of the wound himself, he applies the strip, well stretched, to this other side, keeping it on the point which is most remote from the division. It is very requisite that the skin be cleaned and perfectly dried. In M. Gama's mode of proceeding, strips of plaister are cut off at least an inch in thickness, and long enough to pass twice round the limb or trunk, or at least the part where the wound is situated. Each strip is rolled into two rollers. The centre of these is placed on the point diametrically opposite to the wound, and each end drawn towards the wound, the borders of which may be thus brought together with any degree of force. The ends of the strip having been crossed, they are passed round the limb a second time. This method is superior to the other; it secures an exact, firm, and irretractable adaptation of the lips of the wound, and is less liable to produce strangulation of the parts, or to permit relaxation of

* It would be difficult to say why; however, the different positions and bandages which contribute to reunion, will be noticed in the accounts of particular operations.—T.

the dressings. If necessary, openings may be left between the strips of plaister, to apply lotions or leeches. If there is reason to fear pressure on the arterial trunks, this may be removed by placing compresses or charpie along the sides of their course. After three weeks or a month, the apparatus is removed and cicatrization is complete.

The ancients had a method now abandoned, which they called *dry suture*. It consisted in placing long strips of plaister on the sides of the wound and parallel to its direction, and sticking them together. Roux sometimes in this way makes eyelet-holes in the plaisters, passes a thread through them and thus draws the edges of the wound together in the manner in which stays are laced.

Of Sutures properly so called, or Bleeding Sutures.—Before the reform which took place in the eighteenth century, there were reckoned from fifteen to twenty kinds of sutures for wounds of the integuments. At present we retain only four, which might be reduced very well to two.

The following are the *general rules* for sutures; 1, the wound ought to be well washed, &c.; 2, the different points of the lips of the wound should be made to correspond exactly; 3, the integuments should be penetrated at an angle of forty-five deg. at least; if traversed more obliquely, a portion will be embraced at once too thin and too broad; 4, the thread ought to penetrate so deeply into the wound as not to leave beneath it a space in which pus may collect; 5, we should avoid pricking nerves, membranes, or tendons; 6, if the needle is passed from without inwards, the flap should be held between the thumb and forefinger of the left hand; if from within outwards, these two fingers are to be pressed on each side of the line through which the needle is to pass; 7, when suppuration is expected, a free space must be left at the bottom of the wound, to receive a piece of charpie; 8, the distance between the points may vary according to the thickness of the flesh; generally they should be close enough to prevent the wound from gaping in the intervals between them; 9, the distance between the edges of the wound and the points at which the needles are brought out, varies also. It ought not to be more than four lines, nor less than a line and a half, and should be equal on both sides; 10, it is usual to commence fixing the threads in the middle of the wound, except when this presents angles or passes across a free edge, as in the lip; in which cases the first suture is either made at the angles or at the free border; 11, the threads are not to be tied until they are all inserted, and either those in the middle or those at the angles should be tied first. The edges of the wound should be supported by assistants, until the last knot is tied; 12, the knots ought always to

be tied on the side of the wound, and as far from it as possible. They should be placed on the highest side of the wound in order to prevent their becoming saturated with pus: 13, it is an essential precaution to tie the knots so tightly as to close the wound, but not so tightly that when inflammation supervenes, the thread should strangle and cut through the tissues; 14, when a suture is made on a fresh wound, it may be left untouched for four or eight days. If the union is made by the second intention, the suture may remain applied for a month or more; 15, the threads are to be removed one at a time, and those are to be commenced with which are least essential, namely, those inserted last. The knot being cut with the scissors, the edges of the wound supported by an assistant, the thread is to be brought out from left to right, the left thumb and forefinger being placed around the point from whence it is to be withdrawn. We judge by the adhesion of the wound at this point, if we may take out the remaining stitches or if it be necessary to wait longer.

The *particular kinds* of sutures are—

1. *The Interrupted Suture.*—As many threads are prepared as it is proposed to make punctures. Each thread is passed through two curved needles. The first needle, held like a pen in writing, is carried down to the bottom of the wound and then passed through in a direction from within outwards, at a convenient distance. The second needle is passed through the other side in the same way. The needles are removed, and the ends of the ligature tied together, either in a double knot or in a single knot and a bow; the knot to be applied so as not to touch the cut surface. One needle only may be used; we commence by perforating one edge of the wound from without inwards, and then traverse the other side from within outwards. In employing *Lafaye's* method, we thread a single needle. The lips of the wound being held together by an assistant, we pass the needle and thread through both of them at once, and continue this backwards and forwards, leaving a sufficiently-sized loop of thread between each puncture. Then the loops are to be cut through and the sutures tied separately, beginning with the midmost. A third method (*Lavaugyon's*) serves to unite the three edges of a T incision. A thread with two needles is employed. One of them is plunged from without inwards at each of the angles, so that the loop of thread may be used to draw them together. Then both needles are carried from within outwards, beyond the transverse incision, and the two ends of the threads are tied in a knot. For uniting a cross-shaped incision, the method is of course the same.

2. *The Suture of Pelletier.*—This procedure is identical with that of *Lafaye's* for the interrupted suture, except that the

loops of thread are not cut, but are all rendered tight by pulling the two extremities of the ligature at each end of the wound.

3. *The Quilled Suture.*—It is practised like the interrupted, only the thread with which the needles are furnished is doubled, so that one of its extremities forms a loop. All the punctures being made, each end of the ligatures is to be undoubled, and across all the loops placed on the same side, and on the same line, a piece of bougie, the quill of a pen, or a roll of adhesive plaister is to be passed parallel to the wound. On the other side the threads are to be unfolded and tied on a similar substance, with sufficient force to close the wound. Some advise that the quills themselves should be farther united by ligature, but the custom is disused.

4. *The Twisted Suture.*—It is made with straight, round, gold or silver needles, or even common pins, which are left to remain where they have been placed. One of the needles is to be taken between the thumb and middle finger of the right hand, the index pressed upon its head, and the lips of the wound are to be brought into exact apposition. This needle is to be plunged into the sides of the wound, a line and a half or two lines from the divided edge, at first from without inward, through the first, then from within outward, through the second. The first needle being placed, a loop of thread is passed under its extremities, and the ends given to an assistant, who exerts a gentle traction. With the same precaution a second, third, or more needles are passed, and then the operator, taking the ends of the thread from his assistant, passes them in front of the first, and around its ends, to form a figure of eight; this he does four or five times on the first needle, and then proceeds to pass the ligature in the same way under the ends of the next, and so on until he arrives at the last needle, when he ties a knot. There remains only now to protect the skin from the points of the needles, which may be done by a soft compress. Some advise cutting off their ends with strong scissors; but it is better to use cylindrical needles mounted with a spear-shaped steel point, which can easily be removed.

In estimating the value of these methods, the method of Pelletier tends to pucker the edges of the wounds, and may always be superseded by the interrupted suture. The twisted suture is much less liable to cut through the flesh than any other. The quilled suture unites the bottom of the wound well, but causes the lips to gape. We reject it in all cases, and supply its place by the following modification of the interrupted suture. Before tying the threads, we place between them a graduated compress as broad as the space between the entrance and the exit of the needles, or a piece of plaster many times folded. Then the threads are to be tied upon this interposed substance, in bow-ties; by the

use of which we may, if the inflammation be violent, loosen the thread at pleasure.

SECT. II.—Of General Operations.

CHAP. I.—COMMON OPERATIONS, OR MINOR SURGERY.

Minor surgery, independently of the application of bandages, comprehends four kinds of operations: bleeding, counter-irritation, vaccination, and acupuncture.

Bleedings are made from the capillary vessels, by leeches, scarifications, and cupping; from the veins, by incisions of different kinds, from the arteries, by arteriotomy.

1. *In applying leeches*, it is advised to wash the part, and moisten it with milk, or blood, and to roll the leeches, until they are dry, in a cloth. They are after taken one by one between the finger and thumb, and applied by the buccal extremities, but the proceeding is tedious. In cavities of much depth, they should be applied through a speculum, which may be open at its extremity, or closed there, and open at any part of the sides where we may wish to apply them. Thus a speculum open in *front* is convenient to apply leeches to the prostate through the rectum (Amussat), one open at the end, for leeching the neck of the uterus. In a cavity where the speculum is inapplicable, as in the mouth, each leech may be placed in a glass tube, and pushed from behind the point to be bitten, by a pencil, or something of that kind. To apply leeches in considerable number, and over a large surface, it is common to put them in a large glass and turn that downwards on the skin; but many remain frequently at the bottom of the glass, or they all bite together closely, and render suppuration probable. It is better to place them in a cloth held in the palm of the hand, which may be reversed over them, and kept there to prevent them moving from under the cloth; or a glass placed over the cloth answers equally well. An instrument has been proposed (by Bouycers), called the *leech-placer* (*pose-sangsue*), it is merely a small case of fine silver thread, formed like an eye-glass, which is filled with leeches and then pressed with the finger on its apex firmly against the skin. The dullest leeches are said to bite. The explanation which is given of this is not very satisfactory, but the fact* deserves mention.

In applying leeches to the anus, Brunninghausen advises us to place in its orifice a piece of linen moistened with oil, to prevent their making their way into the bowels.

In order to get leeches off, we may pinch them, cut off their tails, put near their heads salt, ashes, or tobacco; but the best way is to insinuate the nail of the forefinger under their sucking extremity, and with a sudden effort twitch them off†. When leeches re-

* If it be a fact.

† The common objection is, that the teeth of the leech are sometimes broken off in the

main too long in the rectum, vagina, &c., or when they get into the stomach, injections of tobacco, wine, and nitre or common salt are advised. The last is the best. To *disgorge leeches*, some take them by the tail and draw them through the finger and thumb, so as to make them return all the blood they have swallowed. We have never seen them survive this process. When not wanted directly, it is better to allow them time to clear themselves in fresh water. If we wish to re-apply them soon, they may be powdered over with wood-ashes, a sure method of making them vomit. Some are usually destroyed, but the greater part are preserved. To restrain the bleeding after leeches, compression with agaric or powdered fibrin, or the use of the *argentum nitratum*, or what is better, of cobweb, usually succeed. Where the hemorrhage is very obstinate, a needle may be passed round the little wound, and the parts tied with a ligature. Auterhith fills the orifice with little bits of charpie, or uses a bit of split wood, with the fork of which he embraces the sides of the wound. The fixed forceps of Graefe or Amussat act on the same principles. Ridolfo di Tacco applies, with success, cupping-glasses over the bleeding part.

In order to make leeches bleed a long time, some have proposed to cut of their tails, and thus permit the blood to run for some time. But this experiment never succeeds: the leech falls off immediately.

2. *Scarifications* are of two kinds; simple punctures with the lancet (*mouchetures*), and scarifications properly so called, in which after puncture, incisions are drawn along the skin for an indefinite length. A bistoury is better. M. Larrey prefers a razor, cutting only on its rounded extremity.

In using the common or German scarificator, which disengages from 16 to 24 blades, it is only necessary to observe that it should be so firmly pressed against the skin as to prevent the elasticity of this structure from throwing them off, and so lightly as not to penetrate too deeply. This instrument is only used with cupping-glasses. The bistoury or the razor may be substituted in all cases, and is preferable when we wish to scarify a phlegmon, an inflamed stump (Larrey), gangrenous parts, &c.

3. *Of applying Cupping-glasses.*—In dry cuppings, we employ those retracted at their openings, or of a simple form, or even common drinking-glasses. The air they contain is rarefied by various processes, which cause such a vacuum that when the glass is pressed on the skin, this swells up and forms a prominent convexity. There are a number of methods of proceeding—1st. Pieces of paper, cotton, or tow, may be placed at the bottom

of the glass, kindled with a candle, and the glass applied to the skin. 2nd. The same substances, moistened with alcohol, may be used in the same way. 3rd. The German barbers merely plunge the cupping-glass in a pail of hot water, and apply it immediately. As the water runs out, the glass is filled with vapour, which is condensed in cooling. 4th. The English prefer warming the air contained in the glass, by means of the flame of a spirit lamp: the two latter methods have the advantage over the former, of securing the skin from being burnt. 5th. Some protect the skin with a piece of card upon which a small candle is lighted; but this is too complicated. 6th. Cupping-glasses surmounted by an exhausting syringe, are very certain and convenient, but are too dear to come into ordinary use*.

In all cases a flat surface should be chosen, any hair should be shaved, the glass should be held perpendicularly, to prevent the air getting in, and applied as soon as possible after the introduction of the flame.

In applying cupping with scarifications the means are the same, except that the glasses are to be applied for a few moments, as in dry cupping, previous to the scarification. When this has been done they are to be re-applied as frequently as the blood begins to coagulate.

Sarlandiere has invented an instrument (called a *Bdellomètre*) which is too complicated, however, but by means of which, when even once applied, the skin may be scarified and the blood drawn, without the apparatus requiring to be displaced.

—o—

Summary of Orfila's Observations on the changes which occur in the Tissues of Dead Bodies after Interment. Appended to Sédillot's Manuel de Médecine Légale. Translated from the French, for this Journal.

(Continued from p. 86.)

Cerecloth and Winding-sheet.—These are destroyed much sooner when the body is not enclosed in a coffin. In this case, at the expiration of from twenty to forty days, the cerecloth is reduced to brown or black laminae, which are half rotten, some being easily detached, while others are so intimately blended with the earth and adherent to the body that they can only be removed by scraping pretty strongly with the scalpel, and large flakes of epidermis are detached along with them, firmly united to this mixture of earth and cerecloth. If the body has been buried in a coffin, the cerecloth becomes covered in many places with eggs, larvæ, and insects, and with the same sanies which we mentioned when speaking of the coffin; this brown pulp is found most plentifully on the back part of the body, and

wound, and give rise to irritation. I am not aware if this is ever the case; at all events it is very unfrequent.—T.

* To which may be added that they do not keep long in order.

especially about the head, neck, and shoulders, and forms masses which are black like liquid pitch, or gray like purulent sanies mixed with the pitchy matter; sometimes they have the consistence and colour of wheel grease. The cerecloth is now easily torn, and is sometimes covered with white mould. As putrefaction advances, this cloth becomes detached in fragments of the colour of dung, or black, and generally covered with a bituminous-looking matter.

The *winding-sheet* at first assumes a yellow colour, with more or less of red in the parts which are in contact with the body; after a little while, its internal surface, especially where the corpse rests upon it, is covered with spots, or small patches, of various colour and thickness, generally soft, and sometimes nearly fluid—these often appear to consist of the altered epidermis; the exterior is covered at many points with a yellow or reddish glutinous matter, which has transuded and assumed the form of lenticular masses, stalactites, &c. At this time the consistence of the linen is not much altered, and some parts of it which have not been in immediate contact with the body, are still white. Later than this it is still entire, but changed in colour; its anterior part is yellow, which in some places is very deep, and spotted with black, except where it has been knotted over the head and under the feet; in these parts it remains white; its posterior portion, which is in contact with the bottom of the coffin, is much moister and more spotted with brown, deep yellow, or wine-lee colour, especially about the head. The exterior of the winding-sheet is often almost entirely covered with larvæ of a yellowish white colour, which are still alive, and give the linen a woolly appearance; the interior presents patches of a yellow mould in some places and a lining of blackish brown fatty matter in others; it contains also innumerable larvæ in active motion. It is already rotten, and tears very easily in certain parts; in others it adheres pretty strongly to the body, and here the epidermis has degenerated into soft and almost glutinous layers.

At a more advanced period nothing remains but some layers of larger or smaller size, enveloping different parts of the body; their colour is blackish brown, but they are so covered with white mould and reddish larvæ that their colour is not at first apparent, and their surface bears a resemblance to certain lichens: when these extraneous substances are removed the linen is moist, very easily torn, and impregnated with a greasy matter, from which it derives its brown colour.

Finally, all traces of the winding-sheet disappear; we found none about the body of Madame de Noresse, who was disinterred three years and five months after her death, while in another instance of exhumation seven years after interment, a portion of it was still remaining.

Having described the changes which the tissues undergo successively during their decomposition, it is of importance to determine whether these changes occur at fixed periods, or whether there be more or less variety in this respect.

It results from our own researches, and those of a great number of preceding authors, that bodies interred at the same time putrefy with different degrees of rapidity, some being completely reduced to skeletons when others are still entire or have scarcely begun to be decomposed. It will not be uninteresting to throw a glance over the principal causes of these diversities, whose examination will evince the impossibility of determining with precision the period of the death of an individual who has been interred for some time.

These causes relate particularly to the age, constitution, sex, state of leanness, or obesity, mutilation, or integrity of the body, to the nature and duration of the malady that has been fatal to the phenomena which have immediately preceded death, the suddenness or protraction of the act of dying, the period of inhumation, the depredations of certain insects on the surface of the body, the nature of the soil, the depth of the grave, the circumstances of the body being naked or clothed, enveloped in a winding-sheet or a cerecloth, the presence or absence of a coffin, the thickness of the coffin, and the material of which it is made, which may be deal, oak, of greater or less thickness, lead, &c., and, lastly, to atmospheric influences, such as temperature, moisture, &c. Let us severally examine these causes:—

Age.—Observation has incontestibly proved, that the bodies of very young children putrefy much sooner after interment than those of adults and old persons, all other circumstances being similar.

Constitution of the Individual.—Although the influence of constitution is not so easily determined as that of age, it is sufficiently established, that individuals of a given temperament, as the lymphatic, for example, buried under circumstances in all respects similar, putrefy at a different rate. Have we not seen subjects nearly of the same age, equally lean, having died of the same disease, say an epidemic, after having been ill nearly the same number of days, interred in coffins of the same wood and the same thickness, side by side, and each twenty-four hours after death; have we not seen these bodies putrefy so unequally, as to time, that, while one has been in the last stage of decomposition, another has scarcely begun to change? To what cause is such difference to be attributed but to diversity of *constitution* in the individuals?

Different constitutions have much influence in this respect, by reason of the different proportions of the animal fluids, and the greater or lesser density of the tissues, which accompany each.

Sex.—The predominance of the lymphatic temperament in females, and the presence of a greater quantity of fat in the subcutaneous cellular tissue, cause putrefaction to take place more rapidly in them, *ceteris paribus*, than in men.

State of Leanness or Obesity.—What has just been said relative to the sex, would lead us to expect that obesity favoured putrefaction after interment, and this has been demonstrated by experience—it has also been found, as we shall presently relate, that the quantity of fat influences the *kind* of decomposition which the body undergoes.

State of Mutilation or Integrity of the Body.—Observation has proved how much solutions of continuity of a certain extent favour the decomposition of dead bodies; it is also well known that contused and ecchymosed parts, in which blood is extravasated, putrefy very rapidly; consequently, when this state of parts is complicated with solution of continuity in the skin, as in the case of a contused wound, the destruction after death is still more speedy.

(To be continued.)

—o—

Foreign Medicine.

Present state of the Medico-Legal Doctrines concerning Insanity in Germany. By M. Taufflich.

(Continued from page 146.)

WE proceed to pass in successive review the phenomena, both physical and moral, which German authors have laid down as certain in those monomaniacs upon whom their observations were made, and then point out the value and importance which they consider to be due to those symptoms.

The individuals in whom they observed instinctive monomania were in general nervous, hysterical, or recently delivered females, hypochondriacal and epileptic males, and young persons of both sexes at the period of puberty. These persons almost always exhibited more or less decided derangement of the digestive functions, chiefly characterized by a variously costive condition of the bowels, with a sanguineous congestion about them, occasionally followed by hemorrhoidal tumours. To this primary derangement were added, in the majority of instances, more or less of habitual headache, symptoms of cerebral congestion, highly coloured face, suffused eyes, tinnitus aurium, giddiness, an agitated and uneasy state, palpitations, a sense of constriction in the epi-

gastric region, &c. These painful sensations were roused to a great degree at the mere sight or sole idea of the object of the monomania; the sight of any instrument that might serve a violent purpose, of a knife for instance, was often sufficient to develop the greater number of the phenomena above enumerated.

The disturbances in the psychological functions were not less worthy of remark. A melancholy of varied intensity frequently precedes the attacks; the patient is bewildered on finding himself pursued by sinister ideas of murder or fire, to the horrors of all which he is perfectly alive, but under the power of which he is in constant fear of falling. This depression sometimes finds vent in showers of tears, a phenomenon inexplicable to the bystanders, because they have no idea of the terrible contest that is distracting his mental faculties. Sometimes the patient has the sensation of a voice within commanding him to murder or to set on fire. Up to this point reason has maintained its empire—the criminal impulse is repelled with horror: the patient, feeling all the danger of his position, strives to render the enactment of his propensities impossible. For instance, a mother sends her child that she is suckling to other care than her own, in order to prevent an event which she above all others fears. And what is more remarkable, this very fear, far from obliterating, far from weakening the homicidal desires of the unhappy mother, appears, on the contrary, to give them renewed activity: it exasperates the tempest of the mind, and heats the imagination by incessantly recalling the attention to an object which it would be better to forget. Frequently the patients reason with themselves; they call to their aid all the activity of their intellectual functions in order to combat the miserable thought that pursues them, and disclose to their own eyes all the enormity of it. Some even at the foot of the altar beseech the Deity in fervent prayers to deliver them from the atrocious propensity that besets them: others seek in distractions, in varying walks and journeys, the means of striving against this horrible disorder.

Notwithstanding these well directed efforts, the disease sometimes goes on increasing, the murderous idea returns at every instant

with renewed force, and leaves no interval of quietude, thus making the struggle more and more dreadful. The patient, a prey to harrowing distress, has exhausted all her means of resistance—she knows not how next to act. A moment at length arrives in which her insupportable sensations must be got rid of at any price; should the object of her monomania be then presented to her, the mischief that ensues may be readily imagined. The ferocious instinct, which neither reason nor religion, nor maternal love, has been able to prevent the growth of, ceases to be at all mastered in this moment of aberration and agitation, wherein even the shade of reflexion is banished, and if the physical means of gratifying her desires be not offered to her, the most dreadful excitement follows.

Such is the melancholy but true picture of the disease, as copied from facts observed in Germany, and it will be found not to differ from the same in other countries. The limits of this essay do not allow me to enter in detail into the observations that would justify the above description: I shall only relate the following case, which is particularly remarkable from the evident connexion that was found in the patient between certain bodily affections, and the attack of monomania. I quote it with confidence, as it is given by one of the most celebrated of the German medical jurists, M. Wildberg*, under whose actual observation it fell.

A man of erudition and great worth, who died not long ago, observed in himself the birth of an inconceivable desire to murder his eldest daughter. He was a man of 51 years of age, short compact stature, of a bilioso-nervous temperament; his face was naturally highly coloured; from the virile epoch he had been frequently visited by divers abdominal affections, constipations, hemorrhoids, by sanguineous congestion in the head, and frequent headaches; all which were accompanied by great mental depression, which was in great contrast with his gay disposition when in health. This tendency to hypochondriasm was increased and kept up by various vexations that he suffered about the time of these attacks. Gradually his mind became so affected as to render

painful and tedious to him the literary occupation in which he had formerly delighted, and he sometimes was so much a prey to anxiety, that he knew not what to do to procure ease. His eldest daughter, 17 years of age, had hitherto succeeded in relieving him from some part of his melancholy, and for this purpose was frequently with him in his study and his walks. One day she entered his apartment at a time when he was racked by sinister and melancholy thoughts. On a sudden the horrid thought entered his head of killing his child; he was so horrified at it that he begged her to leave him alone and that immediately. She was no sooner gone than he burst into tears, and was a long time of recovering from the violence of the emotion: subsequently he resolved to try the effects of change, and on the following morning he left his home and remained from it five days. During this journey his black ideas were in great measure dissipated; but no sooner did he again see his daughter than his homicidal desires were renewed with double force, and this every time he saw her, although as a man of pious habits and paternal feelings, nothing could be more abhorrent to him. From that time he caused everything that could assist in acts of violence to be kept out of his way, and at the same time took the precaution of never being alone with his daughter; notwithstanding which the horrible thought of destruction incessantly tormented him. Having consulted M. Wildberg on his case, the latter first of all insisted on the absence of his daughter for a period: he then subjected his patient to a gently purgative and antispasmodic treatment, recommending him at the same time to take frequent walks with a few friends; and this treatment effected a total change in the space of a fortnight. After a certain number of copious alvine evacuations the appetite returned, the sleep became more calm, his movements were more free, and the mind was visibly more quiet. He again began to have a taste for his usual occupations, with which he had been hitherto disgusted. Yet it was observed that in the company of his friends he every now and then became suddenly silent, would go to the window for a few minutes, and then as suddenly return to the conversation. The treatment was continued for a fortnight

* *Magazin für die gerichtl. Arzn.* 1831.

longer, and was closed by the administration of some tonics; the recovery was then complete, the patient feeling himself altogether and permanently rid of the sinister ideas that had tormented him. He desired to see his daughter, and from that time to his death never had a thought but for her welfare. M. Wildberg remarks, that had a similar state been present in a man of little or no education, he would almost inevitably have been drawn into the most confirmed homicidal monomania.

Remains to examine the state of the monomaniac immediately after the act of violence committed during the attack; this state should not be lost sight of, being allied to very important medico-legal considerations. But previous to addressing myself to this subject, it should be remarked that though the existence of *instinctive* homicidal monomania as above described has been frequently observed in Germany, the disease has rarely been known to lead to actual murder. In the majority of the cases of homicide committed in monomaniac paroxysms that appear in the works of authors, the patients were led on by a real partial delirium, originating in a false and absurd idea—they were in fact cases of *rational* monomania, and we shall return to them hereafter. On the other hand, incendiary monomania has very frequently induced to the actual commission of the act; and here I speak only of the purely instinctive monomania, that is to say, of the monomania that is characterised by the total absence of any motive whatever, reasonable or unreasonable. It will, therefore, be from facts connected with this latter variety of monomania, that I shall endeavour to trace the condition of patients immediately or very shortly after the deplorable act that would seem to assimilate them to the greatest miscreants.

Scarcely is the act finished than a perfect calm succeeds the violent agitation above mentioned; the terrible struggle that shook the subject to his centre, ceases with the impulse that had provoked and maintained it. At the time the patient feels himself actually relieved; he even feels a cheerfulness that does not fall to the lot of men who have acted freely and from criminal motives. The youthful incendiary mentioned by

Klein in his *Annales Judiciaires*, felt a joy she had never before experienced, on beholding the fire break out, and found herself freed from a load of anxiety that had oppressed her for three days. But this sense of relief is soon changed into the most bitter of feelings; a few calm moments suffice to bring back reflexion, and draw the attention of the patients to the deplorable effects of their action; and rousing as if from a deep sleep of mind, they recognise all the horror of the crime they have committed. A young girl, noted for her retiring behaviour and mild disposition, made seven successive attempts at incendiarism in her own village in the neighbourhood of Coblenz. Interrogated as to her motives to the act she wept bitterly, and said that at certain times her reason seemed to be deranged, and she was then irresistibly, and without any feeling of hatred, driven to the commission of the act, after which however she always suffered the most pungent remorse; still she persisted in saying in her justification, that whatever horror she afterwards felt, she could not do otherwise in her disturbed moments. On her trial, by the jury of Coblenz, Doctors Settegast and Ulrich readily evidenced to the existence of a mental lesion that deprived her of moral liberty at the time of the act, and she was unanimously acquitted. A distinction must therefore be drawn between the condition of these monomaniacs, and those that are so *by partial delirium*, who so far from agreeing in the criminality of their actions, imagine they have done a thing not only allowed, but useful and necessary.

We have now to examine, with the German authors, the value of the signs that distinguish true instinctive monomania from the mental condition of a man who, though urged by criminal desires, is not however deprived of his liberty—a task requiring much care, and, I fear, a greater number of observations than I have been enabled to collect. I shall, however, endeavour to bring together some data that may assist in determining the value of the signs of monomania, by presenting, in the shape of a summary, the practical conclusions that have been arrived at, or that may naturally be deduced from a certain number of medico-legal observations made in Ger-

many at different periods, but more particularly in latter years.

1. *The age and sex* are generally taken in considerable account, particularly in youthful incendiaries at the period of puberty. Both individual physicians, and whole faculties, have laid stress on this circumstance in enumerating the reasons for admitting a privation of moral liberty in those persons. If however the age of the sexual development be too readily admitted as an excuse, do we not expose ourselves to the error of establishing a relation of causality where only a mere fortuitous coincidence exists? And would not such errors tend to encourage crime? Might not, for instance, evil disposed men, in order to avoid retribution, make use of young persons in the execution of their designs, whose age would give colour to the pretext of incendiary monomania? These are questions that have been raised by several medical jurists. Amelung and Henke are of opinion that any value attached to this kind of justification should be yielded with the greatest caution, and that it should be altogether withheld whenever apparent morbid phenomena failed to prove that this evolution of the genital organs had excited a marked influence on the nervous system in general, and on the cerebral functions in particular.

(To be continued.)

—o—

The London Medical

AND

Surgical Journal.

Saturday, September 5th, 1835.

IMPORTANCE OF COMPARATIVE ANATOMY.

SEVERAL studies which were formerly deemed only accessory to medicine, are now justly considered as essential. One, however, yet remains whose importance is not duly appreciated, namely *comparative anatomy*. If physiology be the basis of medicine, comparative anatomy must no longer be considered merely as a collateral branch of science, since nearly all that is satisfactorily known in physiology has been derived from an extended survey of the various

forms of organized being; and since, in the investigation of points that are still doubtful, we have reason to be daily more distrustful of the results of direct experiment on the living organism, and further encouraged to trace the connexion of certain functions with certain organs, by marking the increased perfection of the former, invariably accompanying the fuller expansion of the latter, and *vice versa* in a descending scale, the system of animated nature, if properly viewed, presents a grand series of those experiments which physiologists ineffectually institute by the barbarous mutilation of living animals. A physiologist, for instance, scoops out the brain of a cat, and proceeds to record the effects of this delicate operation on the *vital* phenomena—of what? *a dead cat*. Would he not be better occupied in observing the modifications of function which accompany the gradually curtailed development of the brain, from man down to the *mollusca*? In this series we find parts of the organ disappearing, and, if we go yet lower, to the *rudiate*, we find the whole disappearing, but all without *mutilation*; each of our subjects is an entire and healthy living animal, fulfilling, undisturbed, all the functions which nature intended it to perform—that is, it is a legitimate object of *physiology* which is the study of the natural and healthy functions of organized life.

In performing experiments which involve the fatal mutilation of animals, we are studying death, not life; we are learning the influence which the removal of an organ has in *killing* an animal, not the influence which its presence has in *keeping it alive*.

We do not at all wish to deny that the *clue* to many important discoveries may be found in such experiments, but we entirely agree with the greatest physiologist of this age—Sir Charles Bell—that the discoveries themselves must be the result of diligent anatomical investigation; and how can that inves-

tigation be so effectually pursued as by following each organ or system from its most rudimentary form to its highest perfection, or from its full development to its final evanescence?

Again, the study of comparative anatomy greatly facilitates the acquisition of human anatomy. By their conjunction the subject is viewed in its essence, apart from those dry, and frequently useless details, which now cost the student so much labour when at school, but which he afterwards finds so difficult to retain, and so little worth retaining; by the comparison of different modifications of organs ministering to the same function, anatomy becomes physiological instead of mechanical, and the student easily remembers that a thing is one way rather than another, because he sees a *reason* why it should be so.

We trust that in the approaching reorganization of the profession, the means of cultivating this most interesting and useful department of knowledge will not be neglected. We already possess—no we are wrong, *we* do not possess—but the Council of the College of Surgeons do—facilities for the study of comparative anatomy, not elsewhere to be found on earth; we allude to the Hunterian Museum: this inestimable collection will no doubt soon be rescued from the fraudulent gripe of its present self-constituted guardians, and it will then be a shame for the medical practitioners and students of this metropolis, if they fail to profit by such splendid opportunities.

The establishment of a chair of comparative anatomy, in connexion with the Museum, would be attended with great advantages, and, in the event of one faculty being immediately instituted, we have little doubt that such a professorship would forthwith be created. When the general intelligence of the profession is brought to bear on its institutions, the wise men now in office will soon see how much the *subordinates* are in advance of them, and how

rapidly the genuine light of science has been diffusing itself through the medical community for some years past, while *they* have been supinely slumbering in the unwholesome shade of corporate indolence.

—o—

FRENCH HOSPITAL STATISTICS.

—

IN all France there are 1,349 hospitals and infirmaries.

The arrangement of patients, during the year 1833, was as follows:—

Patients on the 1st of January - 154,253
Patients admitted during the year 425,049

Total of patients treated - 579,302

Of this number 381,169 were discharged, and 45,303 died, and 152,830 remained under treatment the 1st of January, 1834.

The ordinary and extraordinary revenues of France, in the year, were 51,222,063 francs, and the ordinary and extraordinary expenses 48,842,097 francs.

The annual average receipts of the hospitals, taken by departments, was 595,605 francs, the average expenses 567,931 francs. The two departments showing the maximum of receipts and expenditure are those of the Seine and Rhône: the Seine having 10,057,098 francs, and 10,054,225 francs expenditure; the Rhône, 2,380,293 francs receipts, and 2,325,496 francs expenditure.

Corsica has the smallest receipts and expenditure: the former being 44,335 francs, and the expenditure 42,380 francs.

—o—

PARISIAN HOSPITAL STATISTICS.

—

THERE are 12 hospitals in Paris:—these are, the Hôtel Dieu, contains 1000 beds. All kinds of patients are admitted except children, lunatics, incurables, lying-in-women, and venereal or chronic cases.

Hôpital de la Pitié, 600 beds; same diseases as the Hôtel Dieu.

Hôpital de la Charité, 300 beds; same diseases as the Hôtel Dieu.

Hôpital Saint-Antoine, 250 beds; same diseases as the Hôtel Dieu.

Hôpital Cochin, 200 beds; same as Hôtel Dieu.

Hôpital Necker, 140 beds; same as Hôtel

Dieu, with the addition of a special ward for cases of lithotripsy.

Hôpital Beaujou, 180 beds; same as the Hôtel Dieu.

Hôpital des Enfants, 550 beds; for children of both sexes, from five to fifteen years.

Hôpital Saint-Louis, 700 beds; skin diseases, ulcers, scrofula, &c. Gratuitous advice every day, medicinal, vapour, sulphur, and other baths.

Veneral Hospital, 650 beds.

Maison Royal de Santé, 175 beds; for the sick and wounded who are unable to get attendance at their own residence; here they pay three, four, or six francs a day for every thing.

Lying-in Hospital, 350 beds.

There are ten infirmaries, institutions, or asylums, namely:

Foundling Hospital, 258 beds.

Two infirmaries for the aged—for women, the Salpêtrière, 5,100 berths: for men, the Bicêtre, 3,200.

Two infirmaries for incurables: for women and children, 525 beds; for men, 455.

Hospice Laroche-focaud, 200 beds; a retreat for the servants of other infirmaries, the indigent, aged, or infirm, of both sexes.

Orphan Asylum, 750 beds; one half for girls, and the other for boys; these are maintained until they become of age.

Institution de Saint-Perine, 175 beds, for persons of both sexes, who pay a fixed sum for admission and board.

Hospice des Ménages, 670 beds, for indigent married people; the men must be at least 70, and the women 60 years old; widowers or widows 60 years.

Hospice Saint Michel, 12 beds, for septuagenarian men, founded by M. Boulard, a merchant of Paris.

There are, therefore, in all Paris, 16,540 beds for patients. Besides hospitals, there are in Paris a great number of other charitable institutions that are not included in the management of the general committee of hospitals.

Hospital Reports.

WESTMINSTER HOSPITAL.

Hydrophobia.

ON Saturday last, Dr. Burne, according to promise, made some remarks on the case of Hydrophobia, of which an account was given

in last week's journal. As it principally consisted in a recapitulation of the case and treatment adopted, we have only to supply any additional particulars since obtained, and a summary of the Doctor's remarks. It was learnt, on inquiry, that though the wound quickly healed, yet it remained tumefied and tender for some weeks. His son was also bitten by the same dog, whether before or afterwards was not known, but he has experienced no inconvenience from it. The dog, which was not his own, was shot some time afterwards on account of paralysis of the hinder extremities, supposed to be caused by being frequently thrown into the water: it evinced no hydrophobic symptoms whatever, previous to death. It was on the 20th, after four days' indisposition, that there was first an aversion to fluids; at breakfast he did not take his usual quantity of tea, nor did he touch any of the toast and water, which had been placed beside his bedside when he laid down, because he complained of thirst. He was that night excessively restless, spasm of the throat occasionally occurred, and there was excessive itching of the hand and arm, which he scratched violently in consequence. It was on the morning of the 21st, that the sight of fluid caused evident annoyance, and gave rise to spasms of the throat. After detailing the progress of the complaint, the treatment and the post mortem appearances, Dr. Burne proceeded to remark, that the disease was one of function, and not of organic lesion, and that the appearances found were to be regarded as effects and not as causes of the disease. The thorax muscles and the heart were found soft, which condition perhaps depended on their violent exertion. The fluidity of the blood could not be regarded as depending on embarrassed respiration, for in cases where it had been so most remarkably, the blood had coagulated very extensively, but in asphyxia caused by the inhalation of poisonous gases it was found fluid: in the present case, the fluid state of the blood might perhaps be ascribed to nervous influence. The collapsed state of the lungs was probably dependent on asthma, to which the man had for years been subject. Though the vascularity of the lining membrane was excessive, yet there was no change of structure. In fine, no cause of death could be constituted by any of the pathological conditions.

Dr. Burne stated that the disease might be latent for a space, varying from 14 days to 24 months: this case, therefore, came within the limits. No evidence existed of the rabidity of the dog. To the question, why the poison should lay dormant in the system as long as it does, Dr. Barry's answer affords perhaps the best solution: the bite of a dog causes a lacerated wound, by which the structures implicated are destroyed, and the poison remains in the wound: the process of healing now takes place, and as the organization of the part is restored, the poison is absorbed.

The following fact is corroborative of this position: a case of hydrophobia occurred after the bite of a cat, which terminated fatally in six days: now, the teeth of a cat are sharp, and would not cause a lacerated wound, so as to give rise to destruction of the structures implicated, and the poison therefore, as in this case, would take effect much more speedily. The spasm at the sight of water must not be considered an essential symptom in this disease: it is merely produced from association; the patient, knowing the effect produced by endeavouring to swallow, is easily affected by the bare idea of it, in his extreme state of irritability, which also gives rise to the effect produced by the application of air. The state of pulse is remarkably indicative of the progress of the disease. In referring to the treatment adopted, Dr. Burne said he had chosen belladonna, as being a remedy less tried than any other, and from observing its great efficacy in allaying the irritation concomitant with the sore throat of scarlatina. In this case, certainly, no benefit had been derived from its use; perhaps it had not been given sufficiently early: he should be desirous of giving it further trial when opportunity offered, administering it in large doses. In conclusion, Dr. Burne spoke slightly of the prophylactic treatment: excision should of course be performed immediately if possible, and suction is also a valuable means of preventing unpleasant consequences in all cases of poisoned wounds.

Fracture of the Parietal Bone of a newly-born Infant, &c. Death—Autopsy.

A dead infant was found on Wednesday, August 19th, in St. James's Park, and was brought to the hospital; it had a shirt tied around it, and was wrapped up in an apron. By request of the coroner, the body was examined on Thursday, by Dr. Basham, clinical assistant to the hospital.

The following appearances were met with. The external surface presented no marks of injury, with the exception of a bruise or two on the left cheek and hip, the largest of which was about the size of a shilling. The umbilical cord had been divided about nine inches from the navel, and had not been tied, at least there was no ligature upon it when brought to the hospital. The surface of the abdomen, and the neck, presented the green and livid appearances characteristic of incipient decomposition.

Over the left parietal bone there was a considerable tumefaction, but there was no mark of violence on the integuments, in the shape of a bruise, &c. Upon dividing the scalp, the tumefaction was found to depend upon a quantity of dark coagulated blood under the aponeurosis of the occipito-frontalis muscle, which extended over the left half of the roof of the cranium, being most abundant over the parietal protuberance. Upon exploring the left parietal bone, it was found frac-

tured in two places: one fracture extended from the protuberance to the sagittal suture, the other, a smaller one, from nearly the same point to the lambdoidal suture. The calvarium being removed, a considerable quantity of coagulated blood was met with on the surface of the brain generally, and more especially in the situation corresponding to the fractured bone, it was seated between the arachnoid and pia mater. The brain was in a state of extreme softening; its vascularity, however, might be regarded as nearly normal. At the base of the cranium, and in the spinal canal, the arachnoid sac contained a rather abundant quantity of bloody serum.

The lungs were found in a half-collapsed state, and crepitated to the touch, and shewed the presence of air in them, through some of the semi-transparent superficial lobules. The pulmonary vessels contained a quantity of blood not coagulated. The lungs floated, upon being placed in a vessel containing water. That the gas contained in the lungs was atmospheric air, and did not result from the process of decomposition, appeared to be proved by the red and healthy appearance of these viscera, which did not present the least trace of putrefaction. The stomach was perfectly empty, and its mucous surface healthy. The small intestines contained a little gas. The large ones were distended with an abundance of dark green and viscid mæconium. The umbilical vein in the abdomen was highly distended with gas, doubtless arising from the decomposition of the umbilical cord; it resembled, very considerably, a portion of small intestine.

Notwithstanding the satisfactory nature of this evidence, establishing as it does the violent death of the child, it seems that on the inquest, the jury tendered a verdict of "accidental death." This would have been received, had not Dr. Basham remonstrated very strongly against so complete a neglect of his evidence, upon which, the coroner directed the jury to re-consider the subject, when they brought in a verdict of "wilful murder by some person or persons unknown."

—o—

FIFTH MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

Anatomy and Medicine.—Mr. Hart read a 'Report on the action of certain poisons on the animal system,' drawn up by Dr. Roupell, at the request of the Association, at their last meeting. The section passed a vote of thanks to the learned gentleman for the care, accuracy and ability with which he had performed the task assigned him.

Dr. Alison read a paper, 'On the state of arteries leading to inflamed parts.' During the continuance of inflammation, the arterial capillaries were in a state of relaxation and distention, and unable to transmit forwards

the blood sent to them; and not only the capillaries, but also the larger arteries leading to them, were thus affected, having lost a portion of their contractile power, usually denominated tonicity. The latter position the learned professor endeavoured to prove by direct experiment; a portion of the axillary artery of a horse which had suffered from severe inflammation, was placed horizontally between a perpendicular column of mercury and a graduated tube containing water; the contractile power of the artery was made to expel a portion of the water, the quantity of which, as indicated by the graduated tube, was consequently a measure of the contracting power or tonicity of the artery, which was found to be in the artery of the diseased limb as compared with that of the sound one, as 10 to 16. Similar results were obtained from observation on the power of redilatation of the structures after their final contraction at the moment of death. The blood is in a state of accelerated motion towards the inflamed part; where it is retarded, the fibrine seems to be increased, with a stronger disposition to concretion or coagulation. From the previous considerations, the learned gentleman proposed the conclusion, that the increased vital action of the blood during inflammation, was not communicated by the coats of the vessels, but that its cause and seat must be sought in some other situation.

Dr. Alison next proposed to the section some interesting speculations on the power of atmospheric air in promoting the circulation, which he held to be otherwise than by its mechanical influence. On leaving a rabbit for some time in azote, and removing it before asphyxia had been completed, before even its respiration was much altered, he found, on destroying the animal instantly, that its circulation had been interfered with as completely as if it had been entirely asphyxiated; the right side of the heart was in strong action, but could not transmit the blood through the lungs. The learned gentleman answered some objections which might be urged from the contractile properties of the capillaries; in conclusion, he proposed the following speculation, that in the lower classes of animals, and in vegetables, the motion of the fluids may be promoted by the air otherwise than by interposition of its particles.

Mr. Whatton (of Manchester) read a most interesting paper 'On partial amputations of the foot.' After an admirably drawn up memoir on the former modes practised in France and England, and some strictures on those known as Chopart's and Hey's operations, in which, from the removal of the attachments of the tendons of the principal muscles of the leg, and the aponeuroses covering them, those muscles were rendered completely useless for the purposes of progression; and though the heel remained, the limb was scarcely so serviceable as a wooden leg. Mr. Whatton proposed and entered into a minute detail of the longitudinal operation which he had been

long in the habit of performing, and, as evidence of its complete success, and the advantages attending it, he presented to the section a patient on whom he had so operated. The man walked stoutly, without even a halt, could stand with ease on the imperfect foot, and seemed to suffer very slight inconvenience from the loss he had sustained, though, in this case, the three outer toes and metatarsal bones, the third cuneiform and cuboid bones, and a portion of the os calcis were removed. Mr. Whatton exhibited casts, taken from the foot at different periods after the operation, which, at the request of Professor Harrison, he presented to the Museum of the Royal College of Surgeons in Ireland.

Dr. Granville expressed his high admiration of the operation so admirably detailed, and proposed a resolution expressive of the particular approbation and thanks of the section, with a request that the author of it would not wait for the formal volume of the Transactions of the Association to publish such an admirable and useful operation, for the benefit of the profession and the community.

Mr. Carmichael, as the senior of the profession in Ireland present, begged leave to second the motion, and bore witness to the very inconvenient and almost useless condition of the limb after the transverse operation of Chopart had been performed; he did not hesitate to characterize Mr. Whatton's operation as one of the most important improvements introduced into modern surgery.

A member, although concurring in the justice of the resolution, feared the section would be going beyond its powers in passing such a resolution, for which he was not aware of any precedent. After some conversation, the resolution was agreed to.

Dr. William Stokes read a paper 'On certain thoracic diseases,' in which he endeavoured to establish unerring diagnostic marks, in cases where accumulations take place within the thorax from former diseases, which will seem to distinguish accumulations of air from emphysema of the lung, and accumulation of pus from pleuritis.

Dr. Evory Kennedy read a paper 'On the nature and treatment of purulent ophthalmia in new-born infants.' He detailed his treatment of this affection by strong solutions of lunar caustic. A conversation on the subject ensued, in which the plan was discussed by Drs. Beatty, Collins, Byrne, and Ireland. The latter gentleman threw considerable light on the subject, by explaining the chemical changes which take place in the nitrate of silver when it comes into contact with the animal matter on the surface of the eye, which cause it to lose its caustic properties, so that it mattered not whether the solution was made with ten grains or thirty, to the ounce of distilled water.

A paper was read from Mr. Knowles, of Birmingham, detailing a successful case of Cæsarian operation, from which the mother

had perfectly recovered, and both she and the infant were now doing remarkably well.

Dr. Corrigan read a paper on the peculiar sound frequently found in the heart, termed *Bruit de Soufflet*. He laid down a theory as to the efficient cause of this sound, deduced both from observation and experiment, and applicable to the different and even opposite conditions of the heart and great vessels in which it is known to exist. After showing that the causes assigned by Laennec and Williams were insufficient to account for all the cases in which it was known to occur, for instance, in both active and passive aneurism of the heart, in vessels of the pregnant womb, and in aneurismal varix, &c. &c., Dr. Corrigan explained his own theory by stating that this sound will be heard when, from any cause, the blood will flow through any cavity or vessel in what he termed "a current-like motion," that is, in different directions through a cavity too large for the entire mass; this he farther explained by representing the normal condition of the blood's motion to be that of an equably moving stream, flowing *en masse* without any diverging currents, and showed how conditions giving rise to this current-like motion existed in all these even opposite pathological states in which it was found. A conversation followed on this highly interesting subject, in which cases were related confirmatory to the views held by Dr. Corrigan, by Surgeon General Crampton, who was at this time in the chair, and Dr. Harty.

Dr. Perry, of Glasgow, read a paper 'On Typhus Fever,' in which he attempted to establish this disease as one of the exanthemata, produced by specific contagion, running a certain course, accompanied by its peculiar eruption, and ending in desquamation, at which time he observed it to be most capable of propagating itself by infection.

Mr. Le Strange exhibited the action of 'A new curved drill catheter' to the section, which, after being introduced with any required elevation or depression, could be firmly fixed to a table by means of a clamp to which it was attached, and the powerful action of the drill applied to perforate a calculus previously grasped by the instrument; this was found capable of breaking up calculi which resisted the action of the screw perforator, and the hammer.

Friday.—Dr. O'Brien read a paper containing his 'Views on the functions and diseases of the digestive organs.' These views, so important in their practical result, have been for some time before the medical public. Dr. O'Brien defended them most ably, before the section, from objections which had been made against them in some of the reviews shortly after their first publication.

Dr. Osborn, President of the College of Physicians, read a paper containing 'Observations on the effects of cold on the human body, and on a mode of measuring refrigera-

tion.' The great importance of this subject was shown by the fact, that from 57 cases of disease at present in Sir. P. Dunn's Hospital, 34 were distinctly traced to the application of cold.

From the great quantity of air (28 cubic feet every hour) which is being constantly raised during the process of respiration, to about 98 deg. Fahrenheit, at whatever temperature it may have been inspired, and from the well-known experiments of Sir B. Brodie in 1812, there appear good grounds for considering, besides its other important changes in the economy, that respiration is a cooling process; during health, very little effect is produced by the impression of atmospheric air on the bronchial surfaces, but it is far otherwise when the nervous energy of those surfaces becomes impaired, as occurs in chronic bronchitis, and low fevers; air reaching the ultimate air cells at a lower temperature than ordinary, causes an increase of torpor in the capillary system, and, they ceasing to contract on the blood, life becomes extinguished, and after death the right cavities of the heart and venous system are found gorged with blood. The learned president here made some valuable therapeutic deductions from the foregoing facts; he then took a review of the effects of cold on the mucous membrane of the stomach, which, though less sensible than other surfaces to different temperatures, was not exempt from the general law of diminished action following the continued application of cold.

But the most important effects of cold are visible when applied to the skin. The efforts of mankind to preserve a uniform temperature by clothing, habitations, and artificial heat, demonstrate the necessity of this uniform temperature to the comfort of our present state of existence.

Notwithstanding the great attention paid to the determining the actual state of the atmosphere as to its temperature, weight, and moisture, yet an important effect of its different states and conditions has been omitted, namely, *its cooling power estimated in reference to ourselves*. To supply this deficiency in atmospheric observation, Dr. Osborn took a spirit thermometer, without a frame, carefully graduated from 90 to 80 degs. inclusive, and having heated the bulb to 90, he exposed it to the cooling influences of different situations, and inferred that their refrigerating power was inversely as the time which was required to cause the descent from 90 to 80. The thermometer so applied, he called a psychometer, or measure of cooling, and suggested a number of circumstances to be attended to in order to secure uniformity of results. As a specimen of the modifications of the cooling power of the atmosphere, at the same, or nearly the same, temperature, he detailed the following observation—in open air, at night, temperature, 60, it cooled from 90 to 80 deg. in 3 m. at rest; in 1 m.

48 sec. in a slight breeze; at temperature 62 deg. it cooled from 90 to 80 in 3 m. 30 sec. at rest; ditto, ditto, 1m. agitated with arm.

The refrigerating power of water above air at the same temperature, is shown from the fact that at 70 deg. the instrument cooled from 90 to 80 in air, in 5 m. 40 sec.; in water at rest, same temperature in 24 sec.; in water, when agitated, 15 sec. Numerous important applications of this instrument were pointed out by the learned president, and, in conclusion, he hoped the subject would be taken up by some person who would have leisure to pursue the investigation, and in this event he hoped for some most valuable results on some of the abstrusest subjects connected with climate, and probably epidemics.

The communication excited much interest. After some observations from Dr. Clendenning, Dr. Granville proposed that a committee should be appointed, with Dr. Osborn at its head, to investigate the subject.

Dr. Hutton read an interesting paper containing a case of congenital malformation of left limbs upper and lower. There was no motion in elbow joint, and there existed congenital dislocation of the hip; both limbs were extremely atrophied. What rendered the case peculiarly interesting was, that on examining the head after death, the right hemisphere of the brain was found deficient in great part, its place being occupied by a distended cyst; the patient was idiotic.

Dr. Adams read a paper 'On Erectile Tumours,' in which he ably gave a sketch of all the forms assumed by that disease commonly called aneurism by anastomosis, and detailed some cases which had been successfully treated by seton. An interesting conversation ensued, in which the changes which occur in arteries, from the normal condition, was most ably and learnedly discussed by Drs. Crampton, Read, Handyside and Harrison.

A galvanic plaster was presented to the section; it consisted of powdered zinc and silver, firmly pasted on linen cloth, with a composition of shell lac and borax; the moisture on the surface of the skin was enough to excite slight galvanic action when it was applied; it had been used in America in cases of rheumatism and painful nervous affections.

Mr. W. S. Harris attempted to demonstrate the existence of bony union of the neck of the thigh bone after fracture, and produced for this purpose a portion of the femur and ilium of the late celebrated Mr. Mathews; but it was contended, after minute examination of the specimen, that the disease was not one of genuine fracture of the neck of the bone, but of an affection admirably described by Mr. R. W. Smith, of Dublin, under the title of *morbus coxæ senilis*; this opinion was chiefly insisted on by Drs. M Dowell and Collis.

Dr. Handyside (of Edinburgh) read a por-

tion of a paper, in which he experimentally examined the functions of the veins, lacteals, and absorbents in the animal economy; owing to the lateness of the hour, he could not conclude the subject; he referred the paper to the examination of the committee of the section. The business of the section having terminated, Professor Harrison proposed a vote of thanks to the strangers who had favoured the section by their communications.

Dr. Graves seconded the proposition, which was carried by acclamation.

Dr. Broughton being voted into the chair, vice Surgeon General Crampton, Professor Alison arose, and in the name of the medical strangers acknowledged the compliment, and begged, on their part, to return the Dublin medical profession their most sincere thanks, which was seconded by Dr. Granville. The resolution was carried *nem. con.*, and the section dissolved.

—o—

THE MEDICAL PROFESSION AS IT IS, AND AS IT OUGHT TO BE.

Mr. Dermott's Fourth Letter to George James Guthrie, Esq.

DEAR SIR—My last letter terminated with the consideration of the *two grades*. In apparent anticipation of the *superior* of those two grades, as advised by many of the Council of the College of Surgeons, the Apothecaries' Company have lately issued new regulations, establishing thereby a more extended Latin examination in Gregory and Celsus.

This forcing of men to learn the *dead languages*, by a long and tedious course of study, has done an immense deal of harm in the world—has engrossed the time of men and youths, and, in the same ratio, has retarded the progress of science, as well as political and moral knowledge, true, or living knowledge; in other words, a really sound education consists in acquiring a just perception of persons and things. Wisdom is the proper employment of that, in reference to circumstances or necessities, as they may arise. The very term *dead language* accuses itself—it means one which is *useless*. Sir Anthony Carlisle, who, although a conservative, and awfully mistaken on many points, very properly states—"The reading of Hippocrates, Galen, and Celsus, in the way of educating a physician, or a surgeon, is *perfectly absurd*. I believe that Hippocrates, Galen, or Celsus, would all be turned back in five minutes by either the College of Surgeons, or the Company of Apothecaries: since, if asked about the circulation of the blood, they would answer, that they never had heard of it." The same may be said of other Latin and Greek authors, in reference to other arts and sciences.

This accounts for the young men at Oxford and Cambridge being so deficient in all real knowledge—proving such mistaken dolts in politics—in ethics, as inseparably connected with the latter—and such ignorami as many of them are in anatomy and surgery, where they undergo the farce of attending a course of anatomy, consisting of four lectures in Lent term, and three in Michaelmas, most ceremoniously read, in a style, no doubt, well adapted for kid gloves; where the name of an examination is a “mere form*,” and not the reality exists; where a thesis is often procured by the candidates from the beadle, and where the beadle is the person to whom it is read; where it is often not known, six months before the time, whether the student is “to take out his degree” as doctor of medicine, law, or divinity!!! Before the *beadle* too!—witness, ye worthy doctors, the *dignity* of the medical profession! Do you seek *here*, Sir, for legal wisdom, medical knowledge, or pure, unsophisticated, unmammoned piety?

In answer to this, the farce of education carried on in them, the evil, political and moral effects which these institutions have in their present condition (as connected with the hereditary aristocracy, and the church and state business), the public know quite enough of to form a correct opinion. The whole time, or nearly so, of these students, is consumed in learning the dead languages.

But in behalf of this sort of *dead* education it may be argued, that the prescriptions are always written in Latin—that both medicines, and the parts of the human body, have Latin names. As to the prescriptions being written in Latin, this is only a part of the old system of mystification, which, in the dark ages, was used as a cloak to professional ignorance and empiricism, and had its influence over barbarians. The people at large are now so enlightened, that the relations of most of the sick, in private practice, expect to be informed as to the general nature of the complaint; and they are not only quite competent to receive an explanation as to the general principles which the medical man follows in his treatment, but they positively desire it: and, provided the medical man *can* give such a satisfactory explanation, it is the sure guarantee to his securing practice in the family afterwards, because he gains their confidence. But, on the other hand, the mystifying and reserved conduct amongst medical men, suits some who are bolstered up by family patronage uncommonly well; for it conceals error, and, in some surgical cases more especially, *murder*. The wording of the prescriptions, in Latin and hieroglyphics, has certainly this advantage, it

has furnished more work for the undertakers, for many patients have been dispatched, owing to mistakes in translating them being made by the dispensers.

In regard to the Latin nomenclatures of the medicines, and the various parts of the human body, I do not see the use of them, and I think the names would be quite as well, or better, in English; however, they are easily learnt by a person who is not a classical scholar. And as to Latin and Greek medical or philosophical authors, all those who are worth reading, and many more besides, have been translated long ago. Moreover, I consider that the occupation of translating ought to form a distinct profession of itself, for neither medical men, barristers, nor any persons of great philosophical research in their profession, can follow their practice, if extensive, and consume much of their time as well, in the dead languages.

I conceive that neither the College of Surgeons, Apothecaries' Company, nor any other medical body corporate, have any moral right to examine upon any thing but the branches of the profession and philosophical sciences connected with them; nor have they any moral right to inquire, Sir, *where* did you get your knowledge? Such is altogether a work of supererogation. You may as well go into a tradesman's shop, and say, Well, I find upon examination, your articles are very good, but I will not buy any of them, nor shall you have custom from others until you tell me where you got them, until you let me see your invoice, and I know the name of the manufacturer you received them of. It is quite sufficient that the candidate possesses the necessary knowledge; that must be ascertained by an undeviating mode of conducting the examination, i.e. the latter never must be adapted to the particular or accidental circumstances of individuals, for knowledge is the same to all. And if any class of examiners cannot, by mere dint of examination, and unaided by certificates or anything else, ascertain the degree of theoretical and practical knowledge possessed by a candidate (the subject being placed before him for anatomical demonstration, and his performing surgical operations), why then those examiners should go out to let others come in. It would, perhaps, be rather more arduous for the examiners, but the publicity of the examinations would ensure their efficiency. Certificates amount to nothing; for, granting that they are always correct as to the absolute attendance of pupils, a person may be often present at a lecture in person, but absent in mind.

My dear Sir, the College of Surgeons and Apothecaries' Company, in issuing of late such a multiplicity of regulations, have got deeper and deeper into the mire, deeper and deeper into the certificate system, which, as acknowledged by you all, does not work well—which in principle, in its operation, in its effects, is radically bad, and murderously

* See the Regius Professor's, Dr. Kidd's, evidence.

bad, and it will only make it necessary for the medical revolution, when the bill for medical reform is carried by parliament, to be more decided in its effects. Let it be understood, however, that the medical examination at Apothecaries' Hall is, as now conducted, admirable; or, at least, I believe as good as a *private* examination can be—quite equal to that at Edinburgh, and superior to those at most other colleges.

Believe me, my dear Sir,

Yours, very obediently,

G. D. DERMOTT.

Medical School, Gerrard Street, Soho.

—o—

Lectures Publication Bill.

A bill is now being passed to give lecturers the same copyright as authors. The principle is just, and will be adopted. The decision of Lord Eldon, that a lecture orally delivered might be published, because the lecturer could have no copyright in his words, unless written on paper, was one of the monstrous quibbles of our law and equity. It was the paper and ink that made the copyright, and not the substance and thought of the discourse. The legislature is, however, of a different opinion, and the new bill will give a man a right to his thoughts and brain, without his committing his lecture to paper.

A Parent of Two Children in Christ's Hospital School.

Our correspondent need not be alarmed; neither the almoners nor the medical officers will sanction the appointment of an inexperienced candidate. The appointment of a medical officer is of too much importance to be jobbed in the face of the press.

Death of Sir William Blizard.

Sir William Blizard, F.R.S., died last week in his 93rd year. A vacancy occurs in the Court of Examiners of the Royal College of Surgeons, which affords an opportunity to the Council to fill it in a more just and satisfactory manner than on the self-electing plan.

—o—

STATE OF THE MIND DURING DREAMS

DREAMS only occur in a state of slumber, or imperfect sleep; in deep sleep there is no dream. In dreams, the faculty of judgment being suspended, we have no control over the trains of images that arise in the mind. It is true that Drs. Reid and Beattie affirm that they persuaded themselves in their dreams they *were* dreaming; but it is thought they were labouring under incubus, with which state a degree of consciousness is compatible. The imagination having full sway during the state of slumber, dreams are frequently of the most extravagant character; every circumstance and subject on which the mind dwells

is exaggerated; fear becomes horror, and joy ecstasy. Scenery of the most gorgeous and splendid description is unfolded to us, and the mind revels in a world of its own. It is generally believed that dreams are universally the re-embodiment of thoughts and emotions that have at some period or other occupied the mind—they are old ideas new revived in an entire state, or heterogeneously mixed together. Dr. Mackish relates a most inconsistent dream which occurred to himself, which he was enabled, after considerable trouble, to trace to emotions and thoughts which had occupied his mind shortly before. We often find, too, that after meeting some friend or friends that we have not seen for many years, the mind dwells on them just before slumber, and the dream brings them to view, as we knew them in days gone by; the scenes with which that memory is connected—the haunts of our boyhood—the home of our infancy, comes before us again.

"Indulgent memory wakes, and lo! they live,
Clothed in far softer hues than light can give."

The circumstance of memory being in full activity during dreams, has given rise, in many instances, to a belief in supernatural visitations. Instances are recorded, in which communications have been made in dreams, relating to events which had apparently passed out of the mind and been forgotten. That of a bank clerk, related by Dr. Abercrombie, is of this character. On casting up his accounts at the end of the year, he found a deficit of ten pounds, nor could he, by every exertion of memory, remember to whom he had paid that sum. He went to bed thinking on the subject, when, in his dreams, the person to whom he had paid the money appeared. The dreamer had forgotten to register his name, in the hurry of business; on awaking in the morning, he perfectly remembered every circumstance connected with the event, and made his account correct. This occurrence is easily explained, when we remember the activity of memory during the state of dreaming.

Murderers have horrid dreams; Macbeth speaks of those horrid dreams

"Which shook him nightly,

When on the torture of the mind he lay
In restless ecstasy."

And the coward conscience of Richard speaks of the "shadows" that struck more terror to his soul, than "did the substance of ten thousand soldiers." Cromwell is said to have dreamt that he should be the greatest man in England; these probably arose from his mind being occupied, in its waking hours, with thoughts of self-aggrandizement and power; not from any divine meditation. Other dreams, of a similar character, may be accounted for in their being the re-embodiment of our thoughts and emotions of the mind.

J. F. C.

THE

London Medical and Surgical Journal.

No. 189.

SATURDAY, SEPTEMBER 12, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXVIII.

Motiferous Nerves—Muscular Motion.

VII.—The circumstances hitherto adduced afford presumptive evidence that the proper motiferous nerves and the motiferous portions of the regular nerves are the means by which volition is translated so as to act as a stimulus on the irritability of distant parts, but those still to be mentioned furnish conclusive evidence to this effect. It has been stated elsewhere that direct stimuli, mechanical or galvanic, applied to the trunks of the respiratory nerves, are found to excite certain actions which are usually sympathetic; but it is still more remarkably the case that such stimuli applied to the trunks of the nerves in question excite motions in parts, which, under ordinary circumstances, act only or chiefly in obedience to the will. Thus it has been abundantly established, that any such stimulus applied to the motor oculi, the motiferous portion of the lower maxillary branch of the trigeminus, the abductor, or the hypoglossal nerve, while it produces no indications whatever of pain or sensation of any kind, calls into spasmodic or convulsive motion the muscles which these nerves severally supply, and that a similar stimulus applied successively to the anterior or motiferous roots of the regular nerves, as they arise from the spinal cord, excites similar spasmodic or convulsive motions in the muscles to which these nerves respectively proceed, which succeed each other almost like the notes of a piano-forte on running the fingers in succession over the keys (*a*). A kind of gamut of this description—a melancholy one it is true—is sometimes run down by nature in tetanus, in which the successive occurrence of the gaping and fixed eye, the locked jaw, the elevated eyebrow, dilated nostril, and sardonic grin, the hurried and inarticulate speech, the rigid head, arched spine and stiffened limbs, corresponds almost precisely with the gradual extension of the disease along the roots of the motor oculi and abductor, the motiferous portion of the lower maxillary branch of the trigeminus, the motiferous department of the facial, the

(*a*) These facts have been established principally by Sir Charles Bell (Phil. Trans. 1821 and 1822), Magendie (Journ. de Physiol. 1822), Mayo (Anat. Comm. 1822), Foderè (Journ. de Physiol. 1823), and Bellingeri (An. Univ. di Med. 1824). "I struck," says Sir Charles Bell, "a rabbit behind the ear, so as to deprive it of sensibility by the concussion, and then exposed the spinal marrow. On irritating the posterior roots of the nerves I could perceive no motion consequent on any part of the muscular frame, but on irritating the anterior roots of the nerves, at each touch of the forceps, there was a corresponding motion of the muscles to which the nerve was distributed." This was one of the first experiments tending to establish the fact in ques-

tion, and such experiments have been frequently repeated since with similar results; although it is fair to acknowledge that they have not been equally successful in the hands of every body who has tried them, and some persons have accordingly denied the conclusions to be drawn from them, and even attributed to Bell, Magendie, and the rest, a deliberate intention to deceive. An accusation of this kind of course cannot be replied to at all; and that they could have been themselves deceived is impossible. Suffice it to say, that during a period of thirteen years after his first statement, Sir Charles Bell had found no reason to alter his opinion.—(Lecture read to the British Scientific Association assembled at Edinburgh in 1834).

hypoglossal, and the sub-occipital, cervical, dorsal, lumbar, and sacral nerves. Nothing can be more beautiful or satisfactory than this lesson, taught us by Nature, of the incorporation of these nerves into one system, the office of which is to excite muscles, the ordinary stimulus to the action of which is volition, and the total isolation of this system from the respiratory; since, while none of the reputedly voluntary muscles escape in this disease, none of those the natural stimulus to the action of which is sympathy and passion or instinct are affected, any further at least than these muscles obey likewise the stimulus of volition, and being thus supplied at the same time with respiratory and motiferous nerves, become involved in the affections of the latter.

VIII.—The last circumstance, and one equally conclusive as the preceding, in favour of this doctrine is the fact, that as any action ordinarily excited by sympathy and passion or instinct is intercepted by the division of the individual respiratory nerves, so any action commonly excited to volition is at once obviated by the division of the individual motiferous; and consequently, if the common root of this system be destroyed—as has occurred in some memorable cases of a decay of the anterior columns of the spinal cord—all such actions are of course for ever lost. To omit the effects resulting from injuries of the individual motiferous nerves, those of the impeded function of this system, in general, are beautifully illustrated by that form of palsy in which one side of the body no longer receives any stimulus from the motiferous nerves, and the contrast, therefore, which the so-called voluntary muscles on this side offer to those on the other is particularly striking. In this disease, when perfect, contrary to what occurs in tetanus, the upper eye-lid of the affected side is pendulous under every effort to raise it (*motor oculi*); the eye-ball is stationary, as far at least as volition is concerned, not, however, from excess, but from defect of stimulus (*motor oculi* and abductor); the jaw partially falls (motiferous portion of lower maxillary branch of trigeminus); the eye-brow sinks, the nostril is pinched, and the mouth, yielding on the diseased side, is drawn over to the other (motiferous department of facial), the speech is imperfect—again from defect, and not from excess of stimulus—and the tongue, when protruded from the mouth, tends to the diseased side, the *genio-glossus* of this side yielding to the action of that on the other, so that the point of the tongue is moved, as it were, upon a pivot (*hypoglossal*), the head also is turned towards the diseased side, from the yielding of the *sterno-clido-mastoid* muscle on this side to the action of its fellow; the spine, again, is curved towards the sound side, owing to the yielding of the muscles on the other; and the limbs of the affected side are flaccid and powerless (sub-occipital, cervical, dorsal, lumbar, and sacral). In the mean time, however, the action of all the muscles, the natural stimulus to which is sympathy and passion, or instinct, is quite unimpaired, except in as far as such muscles are liable to be acted upon likewise by volition, and, consequently from the change which they undergo from the lesion of their motiferous nerves, become less competent to act under the influence of their respiratory. No such change, however, occurs in those muscles which are furnished exclusively with respiratory nerves; nor does such a change always result from palsy, even in those which are furnished with both respiratory and motiferous nerves, as prevents altogether the display of sympathy and passion, or instinct, the shoulders, for example, as has been already mentioned, continuing to be raised by sympathy, when the respiration is obstructed, long after they have ceased to receive the stimulus in question.

The fact, then, appears to be established, that the proper motiferous nerves, and the motiferous portions of the regular nerves, in conjunction with such of the respiratory nerves as are furnished with motiferous filaments, are the channel by which the stimulus of volition is, by means of an intermediate action, conveyed to the organs on the irritability of which it acts as a stimulus, no reasonable objection having ever been offered to this opinion: and, with respect to the manner in which they so act as conduits of a direct or primary action in one part, so as to excite an indirect or secondary irritation elsewhere, nothing remains to be added to what was said respecting the operation of the respiratory nerves in a similar capacity.

These, then, are the two indirect or secondary stimuli to irritability—sympathy and passion or instinct, on the one hand, and volition on the other. Of these the former, as originating in any organ of the body, and acting on any organ, could not have been represented in the diagram already published, without confusion; but the latter, as originating always in the brain, and acting only on the irritability of the voluntary muscles, is represented in this diagram by the cord extending from the uppermost wheel to the small wheel—supposed to revolve on a pivot of its own—in the centre of the main or lowest wheel, and indicating, with this, the general faculty of irritability. The motion of this central small wheel indicates, it is true, one of the animal functions, and implies the previous motion, first of the main or lowest wheel, as moved by the horizontal train of cogs, then of that interposed between this and the uppermost wheel, and lastly of this uppermost wheel; the first step to voluntary motion being, as we shall find in future, that irritation, in which the organic functions consist, dependent principally on certain direct or primary stimuli, the second sensation, dependent on irritation, and the third, thought—in that mode of it which constitutes volition—dependent in like manner on sensation. It

was, nevertheless, proper to speak of voluntary motion in this place, since one of its immediate conditions is irritability, and it consists only in irritation—the laws of which we are now investigating; and it was in no degree necessary, as already observed, to enter at all into the conditions on which volition itself depends, in speaking of it merely as a stimulus to irritability.

Irritation, life, or living action, is the result of the mutual co-operation of more or fewer of the stimuli just enumerated and irritability or vitality; and it is in such irritation, modified according to the apparatus, or series of organs which displays it, that every primary and essential function of an organized being—respiration, circulation, deposition, absorption, assimilation, and generation—consists; and to these may be added, as consisting also in mere irritation, the function of voluntary motion, although this last is not, any more than sensation and thought, a primary and essential, but, as it were, an adventitious function, since it requires indirectly, as the two latter do directly, other vital properties besides irritability for its manifestation. Irritation, then, consists in primary vital action, sensible or molecular, modified according to the organ which displays it. We can, indeed, conceive irritation, or mere vital perception, to exist, as elsewhere stated, without any action whatever; but we can never recognise it otherwise than by such action, so that, for all tangible purposes, the two may be identified. But the only universally acknowledged instrument of vital action is the muscular fibre: it remains, therefore, a question of some interest to determine, in what manner this muscular fibre, under the application of a stimulus, is affected—in other words, what is the efficient cause of muscular motion.

The investigation of this question must be premised by the remark that all that we can pronounce *a priori* upon the subject is, that the muscular fibre undergoes in this case some physical change, since it is by such change alone that the mutual relations of the parts, solid or fluid, in contact with such fibre, can become altered; but whether this change consist in a shortening or elongation of itself, we are quite incapable of determining abstractedly, since either process is equally competent to explain the resulting phenomena. If a joint, for example, be held at rest, or a portion of fluid in a duct be kept stationary, by a certain balance being maintained between the length of those fibres which are inserted into the opposite surfaces of the one, or are situated on this and that side of the other, the former will be equally bent whether those fibres which are attached to one surface be shortened, so as to pull it, or those which are attached to the other be elongated so as to push it in this direction, and the latter will be equally urged forwards, whether the fibres behind it are constructed so as to act like a forcing pump, or those before it are dilated, so as to act like a sucking pump upon it. It was accordingly, in former times, a prevalent notion, that the physical change which the muscular fibre undergoes under stimulation was that of *active elongation*; and this notion has been adopted in modern times by some physiologists, with respect in particular to the sphincter muscles; that state of diminished length in which they are while closing the passages which they defend being regarded as their state of quiescence, while that state of elongation in which they are when these passages are open is looked upon as their action (*a*). Against this doctrine, however, as applied as well to the sphincters as to any other muscles, it seems sufficient to say that all are actually observed to become shortened, not elongated, under the operation of a stimulus, and that the sphincters obey the same laws in this respect as other muscles, may be inferred, among many other things, from what occurs in tetanus, on the one hand, and in palsy on the other; the sphincter ani, for example, being frequently so tightly constricted, in the former disease, as not to admit the smallest clyster-pipe, and so dilated in the latter as to be incompetent to restrain the natural discharges, whereas, had the active

(*a*) The idea of an active elongation of the muscular fibre, as constituting the proximate cause of muscular motion, seems to have been prevalent, at any rate, with respect to the sphincters, before the time of Galen, since we find him formally contending against it. He nevertheless admitted the possibility of such an active elongation, which he called *ἐκτασις*, in opposition to an active contraction, which he called *συστολή*; (*De Motu Musc. lib. i. c. 9*); and the same supposed active elongation has been put in requisition in modern times, as the proximate cause of muscular motion in general, by D'Hamberger (*El. Physiol. 1751*), Barthez (*Nouv. Mécanique, &c. 1798*), Sprengel

(*Instit. Physiol. 1819*), and many others. This doctrine, however, is, in the case of the sphincters, pretty obviously unfounded; and, perhaps, whenever such an elongation of the muscular fibre appears to take place, as in the instance of the diastole of the heart, which sometimes, as recently removed from a large animal, recoils after contraction with a force sufficient to overcome every resistance which the hands can oppose to it, every thing may be ascribed to the elasticity, partly of the muscular fibres themselves, but chiefly of the cellular tissue which is interwoven with them, and which, by the contractions of the former, had been thrown into a constrained position.

state of the muscle consisted in its elongation, it should, under the general excitement of the voluntary muscles which occurs in tetanus, have yawned like a barn-door, whereas, under the defective stimulation of these muscles, which takes place in palsy, it should have shrivelled up into nothing.

We seem justified in presuming then, that the action of muscular fibre in general, visible or invisible under excitement is to shorten itself; but it does not on this account follow that all motion produced by a physical change in the condition of such fibre, is the effect of its shortening or contracting itself—on the contrary, it appears that, in not a few instances, very remarkable motions result, not indeed from an action, but from a *passive elongation*, or relaxation of the muscles. All the muscles of the living body must be regarded as constantly in a state of some degree of contraction, as might indeed have been *a priori* presumed likely to result from the permanent application of many of the stimuli—that of caloric for example, and the blood circulating in the vessels—to which they are exposed (*a*); so that what is commonly understood by the term muscular contraction, signifies only an increased degree of that state in which living muscles constantly exist. But assuming this as the case, it follows that motion may sometimes result as well from a diminution of this contraction, as from an increase of it; and that if the finger, for example, be held in a state of rest by the equal contractions of its flexor and extensor muscles, it will be bent as certainly by the extensors contracting less than usual, so as to *allow* of this flexion, as by the flexors contracting more, so as to *effect* it. This doctrine, it will be observed, although, like the preceding, it refers the motion produced to an elongation of muscular fibre, still differs essentially from it; since, while in the former the rest was represented as passive, and the motion active, in this, the rest is regarded as active, and the motion passive. And that such diminished contraction of the muscles is really the cause of some motions is sufficiently certain—for example, of the turning upwards and inwards of the eye-ball, of the pinching of the nostrils and of the falling of the jaw under depressing emotions, when the superior oblique muscle of the eye is inadequate to resist the inferior, the levator labii-nasalis to oppose the elasticity of the nasal cartilages, and the masseter and temporal muscles to counteract the weight of the jaw. The closing of the eye-lids and the falling forwards of the head from weariness are equally good examples of motion from diminished contraction of the muscles, the levator palpebræ superioris in the former case, and the muscles on the back of the neck in the latter, being no longer competent to antagonize respectively the orbicularis palpebrarum and the weight of the face. It is from the same cause, also, that the angle of the mouth is drawn towards the sound side, the side of the head pulled down towards the sound shoulder, and the trunk curved in this direction, while the head is rotated towards the affected side in hemiplegia, the paralyzed muscles having lost the power of preventing these several motions; and a similar explanation may be given of the chattering of the teeth from cold, the muscles which naturally keep the jaw steady, deprived thus of a portion of their chief stimuli, acting now only at intervals, and of the shaking of the whole body, either in mental perturbation or in the cold stage of fever, the several muscles acting under these circumstances, not more,

(*a*) This permanent action of the visible muscles, as well as every kind of action of such as are invisible, was referred by Stahl and his immediate followers, as it still is by some authors, to their tonicity, a property which all were supposed to have in common, while the latter, like those of the parenchymatous tissue, were considered, as before observed, to have this property alone, and, therefore, not to be muscles in the strict acceptation of the term. The proposed distinction, however, between tonicity and the proper contractile property of muscles, which is the same as that between the contractility of Blumenbach and Chaussier; and the irritability of the one, and the myotility of the other, seems to be founded principally, as stated by Fordyce (Phil. Trans. 1788), upon the fact that the operation of the former is perpetual, and upon the presumption that it does not require any particular stimulus for its exercise, while that of the latter takes place, it is said, only at intervals, and requires always some particular stimulus to excite it. The distinction, however, appears

to be quite imaginary. At no period during life are the muscles exempt for an instant from the action of stimuli; and the operation of tonicity, permanent as it is, “can signify only,” as observed by Dr. Hastings, “a near state of contraction, and, as such, must necessarily be dependent on irritability”—that is to say, as displayed by muscles, the contractile property characteristic of these organs. It seems, indeed, quite superfluous, as already remarked, to admit of any hybrid property, as it were, between this latter and elasticity, with which indeed the so-called tonicity is very often confounded, as, among many others, by Bostock. “I conceive,” he remarks, “that there is nothing in the phenomena that have been ascribed to tonicity, which may not be referred to the operation of elasticity.” (Syst. of Physiol. 1824, p. 177.) That it is not a distinct property is more than probable; but every view of the matter seems to justify us in identifying it, not with elasticity, but with the proper contractile property of the muscular fibre.

but less than they should do. And it appears to be in this respect that tremors of all kinds differ from convulsions. The motions of the limbs are often in both cases equally powerful; but they take place in the former from an alternating failure of the contractions of certain muscles allied to palsy, in the latter from an alternating excess of such contractions, allied to spasm, the uniform and mutually neutralizing action of antagonizing muscles, which is essential at all times to keep the parts at rest, being equally perturbed in both. Nor is it only the obvious motions which may thus result from a diminished action of muscles, since many molecular motions also, such as those which give rise to blushing, the increased brilliancy of the eye, the turgescence of erectile organs, and every kind of increased secretion, are dependent on the same cause. Hence it has been presumed by some physiologists that, while the action of muscles really does consist in contraction, muscular motion in general depends upon a diminution of this contraction—in other words, upon a loss of balance produced by the relaxation of certain muscles the continued contraction of which was requisite to continued rest. But that this is not the case is obvious from the fact that a stimulus applied directly to a flexor muscle produces flexion; and in doing this it must be supposed to have produced excitement in this muscle, not have withdrawn it from its antagonist—to have acted positively on the organ to which it was applied, not negatively on an organ with which it did not come into contact. Not only, then, is the only action of muscles that by which they shorten themselves, but by far the greater number of the motions to which they give rise results from an increase in the action of those which move, and not from a diminution in the action of those which prevent motion.

The only obvious change which a muscle undergoes under stimulation is a diminution of its length with an increase of its thickness; and the two appear to be so precisely proportioned to each other, that its whole bulk remains quite unaltered. This is easily ascertained by placing a muscle, while still possessed of its contractile property, under water, contained in a vessel the neck of which is drawn out into a capillary tube, when the height of the water in the tube will be found to be exactly the same whether the muscle be undergoing the most violent contractions, or be completely at rest (*a*). The only question, therefore, is how is this change of figure in the muscle—for this is the only change which it appears to undergo during the contraction—immediately effected? The principal hypotheses which have been at different times invented to explain this appear to be resolvable into six, two of which hinge upon the presumption of some influx into the muscle, two upon that of some chemical change, and two upon that of some mechanical change: the alleged influxes are those either of the supposed nervous energy or of the blood, the alleged chemical changes relate either to certain gases which the muscle is presumed to contain, or to its fibrin, the alleged mechanical changes appertain either to the globules of which its ultimate fibres are said to consist, or to its fibres, large and small, themselves. A few words—and a very few will suffice—must be said of each of these hypotheses individually.

(*a*) Experiments of this kind have been conducted principally by Glisson, Swammerdam, and Goddard, who represent the water as sinking during the contraction of the muscles, appearing to indicate that muscles lose in bulk, or, what amounts to the same thing, gain in density by this process; by Borelli, D'Hamberger, Prochaska, and Carlisle, who describe it as rising, seeming to show that their bulk becomes increased or their density diminished under contraction; and, lastly, by Soemmering, Barzelotti, Blane, Sprengel, Meckel, Dumas and Prevost, Mayo, and others, who assert that it remains quite stationary, appearing to demonstrate that their bulk and density remain, as above assumed, unchanged. A great deal of the discrepancy in the results of these experiments may have arisen from the very unsatisfactory manner in which they have been often conducted; sometimes, for example, by thrusting the arm, as was done by Carlisle, into a bucket of water—in which case of course no allowance could be made for the different

quantities of blood which the limb might, under the different conditions of the rest and action of its muscles, contain; at other times, by placing under water a whole living animal—as was Blane's plan—in which case of course no allowance could be made for any opposite change which one set of muscles might be presumed to undergo during the contraction of their antagonists; nor was this source of fallacy obviated by employing, as Mayo did, the heart of an animal for this purpose, the heart consisting of two quite distinct muscles, the action of which is alternate. Allowing for all this, it is only surprising the experimenters should have come so near one another in their results as they have done; and it may be fairly presumed that, had every source of ambiguity been avoided, the uniform result would have been the mean of the opposite conclusions, at which indeed, as it is, so many have contrived to arrive. Magendie remarks, "*La question ne nous paraît pas résolue, mais hereusement elle est peu importante.*"

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

By DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho:
Session 1834-35.*

LECTURE XLVIII.

*Entozoa — Invermination — Generation of
Worms—produced by Secretion—Worms do
not perforate the Intestines or other organs—
Classification of Intestinal Worms—Leeches
and Beetles in the human Stomach.*

GENTLEMEN—I have now to resume the history of vermination, as it regards man, and then to describe the pathological conditions caused by the different species of intestinal and some other worms.

Notwithstanding the numerous authorities already quoted in favour of the conclusion that the ova of worms are taken into the body with food and drink, there are many other facts which tend to disprove this view of the question. It is urged, on the contrary, that the worms found in man and animals have a peculiar organization totally different from that of those which inhabit the external world. Again, worms in certain animals present different peculiarities from those of the same species in others, though this is by no means invariably the case. Thus the bothriocephalus and tænia solium in man differ from those of other animals; but the lumbricus and ascarides found in man are exactly similar to those in numerous carnivorous and graminivorous animals.

According to the learned Dr. Fletcher, there are twelve proper entozoa in man; one in the lungs, six in the intestinal canal and its appendages, one in the urinary organs, one in the ovaries, one in the integuments, one in the eye, the brain, and muscles, and one in any organ except the intestinal canal, all quite distinct from numerous other animals, which are reported to have been passed from the stomach, urinary bladder, uterus, skin, and other organs, and the source of all of which was, in all probability, received ova. Every invertebrate animal, and even organ, seems to be distinguished in like manner by its own proper parasite.—(See my Journal, No. 162, 1835, vol. vii, p. 171).

It is also a remarkable fact, that worms are found embedded in the liver, brain, lungs, &c., without any trace of a traject between their situation and the intestinal canal.

Pathologists have also observed that different kinds of these animals inhabit differ-

ent parts of the intestinal canal as well as different parts of the body. Thus we find in man, that the lumbricus inhabits the small intestines and stomach, the tricocephalus the cæcum, and the ascaris the rectum. In fine, intestinal worms have been found in the fœtus in utero of man and animals. From all these facts it is concluded, by some physiologists, that worms are generated within the body, and are formed by the living principle, which renders effused lymph an organized part. "Every new animal, and every new part of every animal is," says Dr. Fletcher, "laid down as a kind of organized germ formed by secretion, and that the axiom omnia ex ovo" in this extended sense, is still unimpeached and unimpeachable. (*Op. cit.*)

This conclusion is however purely hypothetical, and wants further proof to establish it.

It is a common supposition of dyspeptics and hypochondriacs, that the sense of gnawing at the pit of the stomach, from which they suffer, is caused by worms. This is seldom, if ever, true, as the sensation depends upon irritation of some part of the gastric mucous membrane. It is, however, a fact, that round worms are sometimes vomited by nervous, hysterical, and hypochondriacal persons, but this is no more than a coincidence; as in a vast number of such cases which we daily observe in hospital and dispensary practice, no worms are expelled, and proper remedies effect a cure.

Moreover, all naturalists and helminthologists agree that worms cannot gnaw or perforate the bowels; and those examples of perforations which have been observed were the result of irritation, inflammation, and ulceration. Such is the opinion of Rudolphi, Andral, Carswell, and many others, and I entirely assent to its correctness. It satisfactorily accounts for the apparent perforations observed by pathologists. Thus Fischer, of Vienna, relates the case of a woman who had two circular openings in the colon, in one of which was found a round worm, partly in the bowel, and partly in the cavity of the peritoneum. He found a similar worm in the cavity last mentioned, but no more than these two in the whole intestines. It would appear, at a first view, that the worms had perforated the intestine in this case; but many instances are on record, of tumours and abscesses in the regions of the liver, umbilicus, and groins, through which the middle parts of worms presented in the form of a loop, while the ends were embedded in the subjacent parts. In such cases, irritation followed by inflammation and ulceration, could alone account for the perforations.

I have already stated that worms have been found in solid organs without any vestige of a traject; thus they have been discovered in the substance of the liver, brain, lung, heart, ovary, uterus, &c. &c. It is also

known that different species infest different organs and portions of the digestive tube.

Some are found in every part of the intestines, others in certain parts only, and some in different organs.

I shall, at present, confined myself to the description of intestinal worms, and adopt the classification of Dr. Mason Good, which is as follows:—

Helminthia alvini—alvine worms.

----- *podicis*—anal worms.

----- *erratica*—erratic worms.

Alvine worms are divided into the following varieties:—

1. *Ascaris lumbricoides*—long round worm.

2. *Tricocephalus*—thread-worm.

3. *Tænia solium*—tape-worm.

4. ----- *vulgaris*—broad tape-worm.

5. *Fasciola*—flake-worm.

The commonest human worms are—1, the lumbricus, or round worm; 2, *tænia*, tape-worm, with its two varieties; 3, *tricocephalus*, which inhabits the cæcum; 4, *oxyuris vermicularis*, or the thread-worm of the rectum.

1. *Ascaris lumbricoides*, or round worm, is often from twelve to fifteen inches long, though, in general, it is much shorter; it is transparent, or of a greenish yellow or straw colour, as you perceive by the specimens now presented to your notice. It usually inhabits the small intestines, and sometimes the stomach of thin persons; it frequently ascends into the œsophagus, and creeps out at the mouth or nostrils, and sometimes, having arrived in the throat, turns into the glottis or commencement of the windpipe, and causes suffocation. A most remarkable example of death caused in the manner just mentioned, is related by M. Andral. It occurred in a child apparently in health, who was suddenly seized with difficulty of respiration, which caused suffocation and death. On examining the body it was found that a large lumbricus had ascended from the stomach and arrived at the glottis, into which it turned, excited difficult respiration, suffocation, and death.

This species bears a striking resemblance to the common earth worm, and many naturalists have pronounced both the same. It often remains quiet, and is only discovered by its discharge; but, in general, it is troublesome, producing an intolerable feeling of sinking at the epigastrium or pit of the stomach, much emaciation, pale countenance, foetid breath, and itching of the nostrils and anus. Many of you, no doubt, recollect the female patient at the hospital, who suffered from all these symptoms, and expelled, by vomiting, a round worm six inches in length. I knew a young lady from whose mouth and nostrils this worm frequently crawled, to the terror of her schoolfellows.

2. *Tricocephalus*, or long thread-worm, is found in the cæcum of sickly delicate children. It is also detected in the horse, boar,

fox, and mouse. It is about two inches long. A vast number of this species is said to be expelled by the negroes in the West Indies.

3. *Tænia*, or tape-worm, is generally found in the small intestines, and also in the stomach, colon, and rectum. It consists in numerous joints, and measures from 10 to 114 feet in length. Bresmer relates a case in which it measured 150 feet long, and it is even said to have doubled this extent. It is stated, in the Medical Transactions of Copenhagen, that a tape-worm measured 800 ells in length. It generally inhabits the duodenum, jejunum, and ileum, and is said to feed on the chyle. It is supposed to reproduce parts which may have been broken off; and it is sometimes expelled like gourd seeds, and hence called gourd-worms. Its structure is very imperfect, and inferior to that of other intestinal worms. It is said to want a nervous and sexual system. There are no symptoms by which we can distinguish the presence of this, or, indeed, of any other species of worms, unless when we see them after expulsion. A curious exemplification of this fact lately fell under my observation at the hospital. A pensioner, who had served under Sir John Moore, at Corunna, supposed he had worms. His complaint appeared to be dyspepsia. Among other things I ordered castor oil and oil of turpentine, as a purgative. He passed a flat tape-worm which measured nine feet, and which I now show you. He told the result to many of the out-patients who suspected they suffered from worms, and earnestly requested the medicine above mentioned. I gratified a few of them, but no tape-worms were expelled.

4. *Fasciola*, or fluke-worm, is rarely found in man. There are apparently many different species of ascarides, or anal worms. All are generally situated in the rectum, exciting troublesome local irritation, which extends along the whole intestinal tube to the lips and nostrils, causing itching of these parts, which induces children to pick and excoriate them. In other cases, the worms crawl from the bowels, and irritate the adjacent parts. In some cases the child grinds the teeth when asleep, starts affrighted from sleep, and fancies the presence of frightful objects. The breath is also foetid, or offensive. The irritation in the lower bowel is communicated to the genital organs, as both organs are supplied by the same nerves, and strongly sympathise with each other; and thence we often observe purulent or yellow discharges from the genitals of both sexes. All these symptoms may, however, exist, independently of worms, and there are none that can be relied on.

The species of ascarides are the following:—

1. *Ascaris vermicularis*—thread-worm.

2. ----- *scarabeus*—beetle-grubs.

3. *Ascaris æstrus*—bots.

The first are also called maw-worms, from having been frequently discovered in the stomach or maw. The second may exist in the stomach and intestines, as I shall immediately prove to you. The third, including the breeze or gad-fly, have been found in the fæces of man and animals. It is said that their ova, or eggs, are deposited in the nostrils of sheep, are hatched, and travel to the frontal sinus and horns, giving rise to vertigo, great irritation, which leads the animals to shake their heads violently, and to rub their noses in the gravel or dust. These worms may finally pass by the nostrils, or cause inflammation of the brain. The eggs are said to be deposited on the lips of horses, to be licked off, swallowed, and finally to reach the rectum. They have also been found in the lower bowels of grooms and horse-dealers.

The last class of worms called erratic, as the gordius or hair-worm, the *hirudo* or leech, and the *musca* or maggot, have been introduced into the bowels, examples of which I shall cite.

The hair-worm is common in the rivers in Lapland, and is sometimes seen in those of these countries. They are swallowed by peasants, who drink from marshy, stagnant pools, and cause violent gripings and discharge of blood from the bladder. After a few hours or days, salivation comes on, which does not continue longer than half an hour, when all unpleasant symptoms cease.

Hirudo. Leeches have been swallowed by men and animals. One of the earliest accounts is that of Pliny, who states, that elephants, which swallowed leeches, were cruelly tormented by these animals in their stomachs. Numerous examples of leeches expelled from the human stomach might be cited, but the following will suffice:—

Mr. Paisley described a case in which a patient discharged two worms, like the common horse-leech, each one and a half foot in length, and one and a half inch in diameter, dead, and filled with blood, and accompanied by a discharge of several pints of blood. (Ed. Med. Essays, v. ii). Dr. Bond, of Philadelphia, describes a case in which a worm got through the hepatic duct, made great devastation there, travelled back again, and was finally expelled. He calls it the hepatic leech. (Lond. Obs. and Inq., vol. vi.) Baron Larrey, “the honest man, and best surgeon, Napoleon ever knew,” has given us a most extraordinary account of the depredations of leeches in the human fauces and stomach, and which I translate from his *Memoires de Chirurgie Militaire*, t. i, p. 359. “During the operations of the French army in Egypt, pools of soft, muddy water were frequently met with, particularly in the deserts bordering on Syria. These contained, among other animals, a species of leech, as fine as a horse hair, but which

acquired, when gorged with blood, the volume of an ordinary leech. The soldiers, urged by thirst, and unsuspecting of danger, threw themselves down on the margins of these lakes, and drank with avidity; but many soon experienced the baneful effects of the leeches which they had swallowed. Painful stinging in the posterior fauces, frequent cough, and expectoration of glairy mucus streaked with blood, and a disposition to vomit, were the primary consequences of the bite. To these symptoms succeeded swelling of the throat, frequent hemorrhages, difficulty of swallowing and respiration, pains in the breast, cough, from irritation of the animal's tail near the glottis, and, perhaps, by the effused blood upon the part, perceptible emaciation, loss of sleep and appetite, restlessness, agitation, and death.”

In the first individual who was examined, a leech, as thick as the little finger, was found attached to the fauces, and was with difficulty extracted with a polypous forceps. Slight hæmorrhage succeeded, and the patient recovered. In other instances, gargles of vinegar and salt water, injections of salt water, fumigations of tobacco and squill, were successfully employed to dislodge the leech from the posterior fauces. Sometimes the animal descended into the œsophagus and stomach, and, after remaining for some time, was at last detached by the use of diluted vinegar, and by the contraction of the organ, and, perhaps, by the gastric fluid. Another man was harassed nearly to death before the cause was discovered; and at length a leech was extracted as before, and another passed from the nose. Baron L. thought another man laboured under nasal polypus; but, on touching the substance, he saw it contract, and, on pulling it away, found it to be a leech of an immense size. It has long been advised, that water ought to be filtered or boiled before use, especially if taken from a stagnant pool. The ancients were aware of this fact, and hence you will find Pliny has described the pain caused to elephants that swallowed leeches when drinking; (l.viii):—“*Cruceatum in potu maximum sentiunt hausta hirudine, quam sanguisugam vulgo cæpisse apellari adverto.*” The old writers recommend salt, vinegar, garlic, assafœtida, mustard, and other acrid substances to be copiously given, with sternutatories of hellebore and elaterium; and when pain was violent in the throat, to hold cold water in the fauces, in order to decoy the leech from its situation. In the *Ephemerides des Curieux*, 1719, a case is related, and styled *Cardialgia Hirudinosa*; the patient, after an emetic, brought up five leeches, four small and one the size of his finger; they were all gorged with blood. He speedily recovered. Dr. Davy has given an interesting account of the leech of Ceylon, which possesses an acute smell; for, no sooner does a person

stop where such abound, than they crowd eagerly to the spot from all directions.

In rainy weather, it is shocking to see the legs of men on a long march, thickly covered with these creatures gorged with blood, which is also trickling down in numerous streams. It is impossible to ward off their attacks. Their bites are painful, and are apt to run into ulcers, sometimes occasioning the loss of limb and life. In many British medical works we find cases recorded, in which small worms came from the nose, malar bones, frontalsinus, and appeared on the surface of ulcers in various parts. M. Itard relates a case of violent otitis which withstood all treatment; at length almond oil was poured into the ear, when the pain ceased, and on removing the oil a worm came forth. In fœtid discharge from the ear, insects often deposit their ova on the part, and thus we can account for the occurrence of M. Itard's case. I know a patient who, during menstruation, passes small worms like ascarides from the uterus: perhaps these are hydatids. I mention the case in my work on Obstetrics: the woman is still alive. But to return to Dr. Good's species. The third variety is *musca* or fly. These deposit their eggs in game and other meats, that have been long kept and are approaching a putrid state, as the *M. carnaria*, flesh-fly, *M. vomitoria* or blow-fly, *M. abaria* or pantry-fly, *M. putris*, called hoppers by housewives, or maggots. These perforate and lay their eggs in cheese, bacon, hams, and other salted provisions.

From the deposit of the eggs of these species of fly in so many articles of the common food of man, there is no difficulty in conceiving how they pass into the human intestines. They cannot live in a healthy stomach, but in a debilitated one they find a comfortable nidus through the entire range of the intestinal canal. Thus, Dr. White had a patient labouring under all the symptoms of dyspepsia. The usual remedies were useless, at length purgatives were used, when numbers of pupæ or chrysalid worms were expelled, and on being preserved they became the *M. cibaria* (Mem. Med. Soc. Lond.) The caddy insect has passed in the same way (Op. Cit., and another case (Ed. Med. Com.), various other fly maggots (Cent. Obs. 85), the larvæ of the bee (Obs. Med. iii, Cur. Wolffén, 1723), and even living spiders (Jour. du Med. iv); lizards, the *lacerta aquatica* (Jour. du Medicine, T); Wolffén also. A snail was found in the stomach (Hufeland's Jour. 1829). All these animals are so changed from a residence in the human body, that it is a matter of difficulty to determine, in many cases, the exact external species to which a larva, worm, or animalcule, within the body may belong. Thus, in one case, the horse-leech has been the size of a man's fist, and contained a pint and a half of blood.

A most remarkable example of the introduction of the ova of insects into the sto-

mach is described by a recent writer, whom I shall quote.

Dr. Pickells, of Cork, relates a most extraordinary case of a young woman, aged twenty-eight years, of a melancholic temperament, possessing a high degree of nervous sensibility, and a religious frame of mind, who discharged a vast number of the larvæ and pupæ of the beetle, as well as perfect insects, from the stomach. The history of the case will be found in the Transactions of the Association of Fellows and Licentiates of the King's and Queen's College of Physicians, v. 4, 1824, from which I condense the particulars.

The subject of this singular case was affected with vomiting of blood, occasional convulsions and catalepsy, and dropsical swellings. The catalepsy continued for a few minutes in general, but sometimes for hours. She had also amaurosis and curious optical illusions. She ate freely of chalk, to mitigate heart-burn. Her appetite was bad, the mouth parched, thirst and confined bowels. A variety of remedies were employed for her relief, but without success. She was so bad that, during a period of three years, the rites of her church were administered no less than fourteen or fifteen times.

After the use of brisk purgatives, she vomited the larvæ of a species of beetle, accompanied by hæmatemesis and convulsions. She described one of them, "a green thing, as long and as thick as one of her fingers, which flew. It had wings, a great many feet, and a turned-up tail. She saw it distinctly leap, and clap its wings. She took it in her hand, and put it into a wine-glass, which it almost filled, and which she covered with paper to prevent its escape. It forced its way out of the glass, flew on the table, and then on the floor. She was now seized with convulsions, and upon her recovery, neither she nor her aunt could find it in the room." She offered to make oath to the truth of the statement.

Emetics were given her, when she vomited a great number of "winged ones." These were seen by Drs. Pickells and Herrick, of Cork. She also passed several by the bowels.

She brought nine or ten large ones, which irritated the œsophagus and caused hoarseness for a week after the expulsion of each.

The fits were supposed to be epileptic, but I should rather think were hysterical, from the manner in which they were arrested*.

Her bowels were costive, and the dejections, when not bloody or purulent, were dark and sometimes green. The catamania were suppressed. The pulse was from 80 to 90. Her mental faculties in the intervals

* *Digitò medici in vaginam intromisso et in os uteri adpresso, semper cessarunt convulsiones, eo annoto autem, redierunt. Hoc experimentum sæpius iteratum fuit à Doct. Keogh, Casey, et Bull.*

of attack were clear and unclouded, but she often traversed her apartments with a wild and hurried step, occasionally uttering the loudest and most bitter shrieks, tearing her hair, or attempting to strike her head against the wall, and calling in a loud voice for her mother, who had been eight years dead.

Dr. Pickells avers that she vomited seven hundred of the larvæ of the beetle, and passed a hundred by the bowels. According to the patient's account she vomited myriads of the larvæ of the dipterous insect, and these were alive and moving. The number of winged ones was about sixty.

"The larvæ of the beetle," says Dr. Pickells, "were, with few exceptions, lively and vigorous in the extreme, nor was it possible, without a feeling of horror, to view them frisking along the bottom of the vessel in which they were preserved, occasionally expanding their jaws, and extending their denticulated feet or talons, as their unfortunate victim used to call them. Some were apparently dead, but revived on exposure to heat." She also discharged some of the larvæ of the musca or fly. In fine, she discharged the larvæ, pupæ, and imago of the same insect, which proves that the successive metamorphoses of insects may take place in the human stomach and bowels during life. These metamorphoses are illustrated in the work from which I have quoted, and I now submit them to your inspection.

The mode of introduction of these insects was so singular, that I quote it verbatim.

"In an anxiety to elicit every circumstance which might tend, in the slightest degree, to develop the mode of introduction of the insects, I once asked her, whether, independently of the chalk, she had ever been in the habit of eating clay. Her answer to this question unfolds a tale which I regret to have to record, as a degrading instance of superstition. When she was about fifteen years of age, it appears that two much-respected and popular clergymen of her persuasion having died, she was told by some old women, that if she would drink daily, during a certain period of time, a portion of water imbued with clay taken from the graves of these clergymen, she would be secured for ever against both disease and sin. She accordingly walked to Kinsale, a distance of twelve miles, where one of the clergymen was interred, and succeeded in bringing away an apron and pocket-handkerchief full of clay from his grave. To this she added, upon her return, a handkerchief and some mugs-full of clay, obtained from the grave of the other clergyman, who was buried in this city. Her practice was, to infuse water from time to time, according to the exigency, in a vessel containing a proportion of clay so collected, the mixture having been always allowed to rest until the grosser particles of clay fell to the bottom.

"She had been for some time engaged in

a daily use of the water, medicated according to this disgusting formula, when the clergyman of her persuasion under whose direction she was more immediately placed, having discovered the unnatural practice, came to her, and rebuked in the severest terms her infatuation; and, not confining himself to the mere remonstrance of words, went so far, in the effervescence of a just indignation, as to break in pieces one of the vessels which contained the clay, being the only one that came under his observation. Notwithstanding this severe and merited rebuke, she still persisted in the use of the clay, until the whole quantity was gradually consumed.

"The blaps mortisaga, it is well known, inhabits such situations as church-yards. This occurrence, however, happened about twelve years prior to the first discharge of insects; and it seems difficult to reconcile with analogy the supposition of their having so long remained in the system. It may also be stated that she has known several other persons, including among the number adults, who used the clay in the same manner, and at the same time, as herself, but that she never heard of their having subsequently experienced any peculiar ill effects."

It is a curious coincidence, that there is another case very similar to the preceding published by Dr. Milner Barry, of Cork, in the Dublin Medical Trans. v. 2, in which a whole family, who went to reside in the vicinity of Cork, became affected with worms. One of the servants observed exactly, what she termed the same kind of worms as those passed by the family, in a well, from which she took the water for their use. Dr. Barry was also of the same opinion. He advised the discontinuance of the water, and he soon cured the family of the worms.

—0—

SELECT LECTURES,

FROM

M. BROUSSAIS'

Course of General Pathology and Therapeutics;
translated and revised

By JAMES MANBY GULLY, M.D.

LECTURE XIII.

Bucco-pharyngeal Inflammations. (Continued).

THE treatment of amygdalitis comprehend three principal indications, 1. to relieve the engorgement, 2. to cause revulsion, 3. to supply air when the disgorgement and revulsion are insufficient. If the phlegmasia is purely inflammatory and tends to suppuration, it may on the onset be stayed by local bleedings, by leeches to the throat: in this disease it is that they were first employed. By them you are enabled to obtain a speedy relief, because an external tumefaction and capillary injection exist in the

cervical subcutaneous tissue and ganglions, which favour their operation so as frequently to annihilate the disease at once, always provided it be taken early: for should it have existed two or three days, and resisted leeches, we may expect suppuration, and we are then confined to the use of emollients and revulsives: the suppuration takes place in one tonsil and the fever abates. Individuals differ widely as regards the termination of tonsillitis; in some it always ends by suppuration, and in others in resolution: this depends on individual peculiarities. I have known persons that have had five or six attacks of quinsey in the space of as many years, and in them it has always ended in suppuration.

Another chance is, that as the swelling and dyspnœa augment, suffocation is imminent. The treatment must then be changed immediately that we see no sufficient effects from general or local bleedings: the tonsil must be incised or tracheotomy performed to save the patient. Asphyxia however, scarcely ever happens, but in those whose tonsils are swelled anteriorly, and in whom the inflammation is most intense; I saw one case of death from the disease in the hospital of Udino in Italy: the tonsil, enormously enlarged, filled the entire of the pharynx and kept the epiglottis firmly pressed down.

The first and third indications are fulfilled by the above means: but an intermediate one is revulsion, effected either on the extremities by means of irritating pediluvia, or on the digestive canal by purgatives, provided the patient is robust, and his secretory organs readily respond to stimulation from natural tendency or from habit; for we may accustom ourselves to artificial humoral evacuations until they become almost as easy to produce as are the natural.

When the inflammation extends to the viscera it must be arrested there: this necessity is palpable.

After this acute stage a chronic swelling sometimes remains in the tonsil and is continually troublesome to the patient: for this scarification has been advised, and I have practised it several times with, however, but small success. I have done better with one or two leeches applied to the tonsil by a tube, as you may remember to have seen latterly at Val de Grâce. Recourse may also be had to a counter-stimulant indication, all kinds of astringent gargles combined, in the case of great tenderness, with opium and the acetate of morphia. You should try all these means, since they are adapted to cause a contraction of the tissue of the organs and to effect resolution: should they fail you have ablation or cauterization as a last resource. Previous however to putting them into practice, you should essay and insist upon a mild vegetable and milk diet, entire abstinence from wine and fermented liquors, and have recourse to gentle laxatives or purgatives provided there is no contra-indication.

Such means I have certainly seen to succeed in individuals whose tonsils remained enlarged and indurated after repeated inflammatory attacks connected with an exaltation of sensibility in the nervous papillæ of the velum palati. Revulsives, such as blisters, are not contra-indicated, but they are less beneficial in this than in other circumstances. It is almost superfluous to mention that in the event of the suppression of an hemorrhage, of any external suppuration, of a dartre, hemorrhoids, habitual sweat, &c., the discharge or irritation should be recalled to its primary seat.

Pass we now to the same inflammation with mucous secretion or to the exudatory form. Here the follicles are more particularly the limit of irritation and the centre of fluxion: the sanguineous capillary network of the gland and its proper substance take little part in it. The causes of this inflammation are cold, particularly cold and moisture—and a peculiar predisposition: miasms contained in moist and cold air have little to do with it. In the commencement it is only a slight sore throat; on looking into the back of the throat we perceive a *couenne* or false membrane applied on the tonsil and more or less fetidness; this shade is referable to the diphtheritis of M. Bretonneau. I have already told you that all the shades of inflammation are possible in epidemics, and that it may attack the same organ sometimes in one, sometimes in another point, but that it never has a uniform and identical form. When people describe epidemics to you as having this identical form, be assured they are romancing; you should take each individually for what it really is, and not lose yourselves in the sloughs of abstraction and ontology. Now, in diphtheritic epidemics, you see individuals who have diseased tonsils without having two or three days of antecedent fever, and others again, who, on the contrary, have had a previous gastritis or pneumonia. If you mix up these facts you fall into confusion: and this is just what has been done in the histories of the epidemics now under consideration. These histories contain cases wherein the affection was confined to the tonsils—these they cure: and others in which it had been preceded by internal diseases—these they failed to cure. On these facts I lay violent hands, and I say if you see a fibrinous sore throat without fever or any sign of internal phlegmasia, it must be admitted that nothing but the sore throat exists; but the patient has suffered from the action of a powerful modifier that has deranged his mucous secretions and unfavourably predisposed the system; this modifier is simply moist cold and it is in vain to bother your head with seeking for another cause; as it has been acting for a long time its effects cannot be confined to a small point and extend to several organs at once. Two things therefore are possible—local and

isolated phlegmasia of the tonsils without fever, and multiplied phlegmasia with fever. As to the tumefaction of the cervical ganglions it does not apply exclusively to this shade; we see it in all inflammations of the throat according to the individual constitution. In it the lymphatics are more especially exposed: the same may be said of it as of mesenteric engorgement with reference to gastro-enteritis—young and lymphatic subjects most frequently suffer from it.

What becomes of this kind of amygdalitis? If it be not arrested, and there be an inflammatory predisposition in the viscera, it extends thither; if only half combatted it remains more or less circumscribed in some point, though it has no invariable progress. In this case, as the inflammation is not urged on with the same violence as in the preceding kind, it does not tend to phlegmon; it is a simple mucous irritation resident in the follicles.

The prognosis is taken from the intensity of the inflammation, and from the exudation: the thicker and more adherent this is the more danger is there, and *vice versa*, though, when thin, it certainly has a greater tendency to propagation. While local it cannot be fatal; but should it be communicated to the larynx, the same secretion that is innocuous on the tonsils is not so in that organ, and croup and its consequences may ensue.

Your duty, as physicians, is first of all to combat the inflammation. If it is sufficiently pronounced to authorize recourse to sanguineous emissions, hesitate not to practise them. When there is external heat or engorgement leeches are excellent; if after applying them the morbid secretion continues, I do not forbid you to strive to alter it. From the onset, you are aware that I have laid down three principles in the treatment of phlegmasiæ; first, sanguineous emissions; next, local stimulation, or counter-irritation; and thirdly, revulsives and perturbing stimulation. Throughout the whole course of my medical life, I have constantly taught and practised these principles, and I wonder that people are not tired of twaddling about my eternal use of gum water and leeches—ignorance or malignity must surely guide them. I hold all means to be good provided I can adapt them to individual susceptibilities. Thus, when you have destroyed the inflammatory congestion, use, if you think proper, topical remedies that may change the morbid secretion, alum, lunar caustic, or muriatic acid. But rest not your whole hope on these means, because after having momentarily arrested the inflammation, you stand a chance of seeing it reappear and extend to the lungs and stomach; the surest way is to utterly annihilate it. Be not, however, enthusiastic in any one means; all are open to you. I have never systematically and obstinately recommended sanguineous depletions alone; I have only in-

sisted on the necessity of a method or mode of arrangement, by which facts might be generalized so as to apply readily to the treatment; such a method appears to me preferable to the arbitrary creation of specialities, the admission of which requires an effort. What then is meant by those who assert that we order nothing but leeches for every disease? they limit us and our means, and they diminish the honour they would have in vanquishing us—less cunning than Don Quixote, who magnified his enemies in order to acquire the greater glory in overcoming them*.

Pharyngitis.—We now follow inflammation into the pharynx, where it may be either primary or secondary; in the latter case—of which I do not propose to speak at present—the inflammation either rises from the bronchi by the larynx, or from the stomach by the œsophagus; when primary, it arises from all the causes that produce inflammation of the fauces. But, you will ask me, are you sure that it can actually exist primarily and apart from the exudatory form? Yes, and I affirm it, although M. Bretonneau has represented it as always associated with fibrinous inflammation of the velum palati, the tonsils, the pharynx, and the mouth; I assert it, because I have seen it, and having the organ of immediate observation of facts, I forget none that I do see. By this power I have certified all the various commencements of this affection, by the tonsils, the velum, pharynx, bronchi, lungs, &c.; besides, know we not that inflammation may begin at any and all points?

Thus primary, it is exhibited in two forms (as are all mucous phlegmasiæ), one dry, the other humid; the dry form arrests the follicular secretions by the violence of the sanguineous congestion, which is sometimes so intense as to, for a short time, redden and cause the tumefaction of the posterior part of the pharynx. How should we treat such a rapid phlegmasia? imitate, by the promptitude and energy of our antiphlogistic remedies, the promptitude and energy of the inflammation, bleed with the lancet if there be congestion or plethora, apply leeches in great numbers to the throat, use emollient injections, pediluvia and irritating glysters, and, in hot weather, apply ice on the throat, after the leeches. When the congestion is in the portion of the pharynx nearest to the base of the skull, and active measures have

* I recommend the whole of this paragraph to those ingenious critics who pretend to know an author's doctrines better than the author himself, or who—and these are the most numerous—know nothing at all about either author or doctrines, yet denounce or sneer at both. A specimen of the latter tribe is a writer of the article on "French Surgery" in the last number of Dr. Johnson's Journal, whose coarseness is only equalled by his ignorance.—J. M. G.

been used, it yields; in the other case it may go on to suppuration. A simple phlegmasia of the pharynx may become an obstacle to respiration; this necessarily rare case requires tracheotomy.

Humid and fibrinous pharyngitis, which is less intense than the preceding, requires, after antiphlogistic means, detersive stimulation and topical means to alter the secretory inflammation, as also revulsion. If you have stimulated too much, return to leeches and emollients: make no vow to abandon either the antiphlogistic or the stimulant plan; use both alternately, as they are required. Next come the laryngeal inflammations.

Laryngitis is one of the most formidable diseases, on account of the narrowness of the glottis, particularly in infancy, and the disposition, at that age, to mucous secretions that easily coagulate. I am of opinion, that the facility with which false membranes form in the larynx, is owing to the heat of respiration and of inflammation: the respired air absorbs the moisture of the pharynx, larynx, and trachea, and dries the mucosities of those parts.

We have not to treat of inflammations of the internal surface of the larynx alone; as we proceed from the exterior to the interior, it is better first to mention the external inflammations of the organ that have nothing to do with mucous membrane; for such exist, and have been denominated *œdematous laryngitis*, or *angina*, words that are vague, but which will be shortly explained in the sequel.

There are, in the region of the larynx, muscular layers, layers of filamentous, lamellar, and membranous tissues, innumerable vessels and nerves, a cutaneous envelope; and, in the composition of the organ itself, cartilages, ligaments, minute synovial capsules, &c. In all these parts inflammation may appear, and I have, with wonder, seen it take its start from each of them.

I shall class the cellular and capsular inflammation together. They are generated under the influence of all the causes of irritation, and are determined by efforts of the voice, singing, crying, &c. Not unfrequently we see them, in our military hospitals, attack officers, whose place it is to give the word of command at the pitch of their voice, without having any regulation of the voice, as in the church or at the opera. Such a result, from giving the word in battle, I have frequently seen, and have been terrified with the intensity of the disease thus originated. One would think it only acted on the mucous membrane, but it affects the whole larynx, and may produce inflammation in all the tissues I have mentioned. Sometimes blows, falls, or attempts at strangulation cause it: persons whom robbers have endeavoured to strangle, have been known to suffer from it; and, after being apparently cured, have retained

a nucleus of irritation that has eventually disorganized the cartilages of the organ. Rheumatic affections may likewise sometimes attack the small articulations of the larynx; I have seen cases where individuals, after suffering intolerable pains of the extremities, were seized with swelling and inflammation of the larynx, sometimes acute, at others chronic, subsequently to which the usual traces of phlegmasia in the capsules, and surrounding cellular and muscular tissues, were detected. The degree of the inflammation was dependant on the activity of the stimulation, the predisposition of the individual, and the manner in which the disease was managed.

In regard to symptoms, this phlegmasia should be divided into the intensely acute and phlegmonous, and the subacute, tending to chronicity, the latter being most frequently only the consequence of a less degree of stimulation than the former. Ensuing on the above-named causes, particularly cold acting on a plethoric and heated individual, the four phenomena of inflammation are seen to arise about the larynx. The redness is not very intense, there is only somewhat more injection than if the phlegmasia was more internal; the patient feels a burning, tension, and stiffness of the throat; add to which the tumefaction—and this is readily ascertained—and you have all the positive signs of inflammation. Next come the negative signs; and these are, the absence of râle, of cough, hoarseness, or any internal irritation that leads the patient to forcible expectoration: there is no internal stimulation, but pain, heat, and a sensation of depression; absence of pain, in deglutition, has been added to these signs, but this is not always the case, and depends on the individual sensibility. When inflammation exists in an organ, every effort to displace it may induce pain therein, and pain is, therefore, possible in deglutition, in this instance, as well as in mucous laryngitis. Briefly, to establish your diagnosis, you make manual examination, you find swelling, heat, throbbing, nothing within the throat, and you conclude that the phlegmasia is external. It then becomes a matter of small consequence whether the *œdematous swelling*, threatening phlegmon, be the consequence of an irritation of the capsules, or a simple phlegmasia of the cellular tissue; the really essential point is to form ground for your therapeutical acts.

When this phlegmasia is considerable, it may act on the pulse and produce fever: this, however, is not an essential symptom; indeed, it does not necessarily belong to any phlegmasia, but only to certain degrees of it: a tolerably severe external laryngitis may exist without frequency of pulse. The sympathetic phenomena of malaise, lassitude, &c., almost always are present. If not arrested, the disease may go on to sup-

puration: I have seen an abscess of the larynx open, empty itself, and leave the great cartilage bare, yet the patient get round without any serious effects on the viscera. Such terminations are possible when the inflammation is purely cellular; but when the nucleus of it is placed in the centre of one of the laryngeal articulations, this nucleus continues notwithstanding the suppuration it produced, and there then remains pain, sensibility of the part to the touch, the minute phlegmasia gains in intensity, and may end in caries of the cartilages, and laryngeal phthisis. Sometimes an induration of the surrounding cellular tissue takes place, a semi-scrofulous condition; a consumption may even come on, and one is puzzled to determine the exact cause of these disorders. What you must do is, ascertain whether the phlegmasia is internal or external, see whence it can originate, whether it is connected with some rheumatic affection, and which is the most sensitive point of the larynx, in order to direct your remedies thitherward. So long as the disease is purely external, no one dies by it: suppuration takes place, and is followed by cicatrization. Cellular phlegmasiæ only prove fatal when they occur between large muscular masses, and produce immense purulent discharges, sloughs, &c.; but in this case it may chance not to be simply cellular, and after the evacuation of the pus, may remain fixed in some articulation of the laryngeal cartilages; it then becomes a chronic disease, which gradually disorganizes the parts, and is ultimately incurable. The patient dead, we find an inflammatory condition of the larynx, and other inflammations that have extended their ravages into the visceral apparatus, and even to the lungs; astonished at the extensive mischief, we look for the starting point and find it, like a minute thorn, in some of the small laryngeal articulations—a diminutive cause of such prodigious effects.

The prognosis is simple; when intense and cellular, there is nothing to fear from the inflammation; but when it is obstinate after passing the acute stage, when there is fixed pain in the larynx increased on pressure, it is very probable that caries is forming; so long as this is limited, there is no danger: but when the irritation that produced it is repeated in the viscera, and causes bronchitis, pneumonia, tubercles, &c., we can have but slight reliance on curative means.

The treatment should be antiphlogistic in the onset of the disease. Again I tell and shall continue to tell you, almost all phlegmasiæ may be arrested if taken in time and vigorously attacked, unshackled by vain fears of debility and of adynamia. After combatting the acute stage, if there remains a painful point, without fever, and there is reason to suspect an affection of the cartilages, antiphlogistics are no longer sufficient; we must bring in aid local suppuration by

moxas, and at the same time apply emollient and anodyne remedies to the wounds, enjoin complete silence and quietude, avoid whatever can put the diseased parts in commotion, and prescribe milk diet; in this manner you will succeed, provided you have not to deal with a patient of bad constitution. Relapses very easily occur, particularly when there is caries of the cartilages, which when once they are disorganized, never again regain their correct positions, and are thus an incessant obstacle to a cure. Such is the disease that has been denominated œdematous angina, a disease that may exhibit varied degrees of intensity, and which is naturally allied to the preceding ones, especially to the articular inflammation. It has been supposed to be accompanied with an infiltration of the internal parts of the larynx, but this is mere imagination.

We now come to croup, properly so called, or to the inflammation of the laryngeal mucous membrane. It has been seen in a variety of forms, all, however, reducible to two, one purely inflammatory without false membranes, the other much more common, less inflammatory, and with secretion of false membranes. It is important to make this distinction in considering the disease both in the adult and the infant. We certainly remark in the former violently inflammatory mucous phlegmasiæ of the larynx without supersecretion, and widely different from those of the latter. In my military practice I have frequently seen persons attacked with violent pains in the regions of the larynx, without external tumefaction, without sensibility on pressure, without, in short, the symptoms of the preceding phlegmasia or œdematous angina. These persons were adults of a sanguineous constitution, had given way to excesses in stimulants and spirits, or had been making violent vocal efforts. They breathed with difficulty, had pains of the larynx, frequently applied their hands to that organ, threw the head backwards, and contracted the elevator muscles of the chest with difficulty; when the disease had reached a high degree the eye became restless, the countenance uneasy, with an expression of intense anguish. Some of them exhibited signs of hydrophobia, convulsive movement at the sight of water, symptoms which I may state in passing may also be observed in tonsillary angina. These individuals neither presented any mucous excretion nor râle that could announce the formation of mucosities in the larynx; on the contrary, that organ was dry and burning. Such were the positive and negative symptoms of this shade of croup. The same shade has been observed in children, but rarely, because croup being a disease of localities, and cold and humid seasons, it is necessarily accompanied with mucous secretions. In reading the numerous works that were published for the

prize instituted by Napoleon, we may observe that the shade in question is much more frequent in adults than children.

This phlegmasia has been ascertained by the inspection of individuals cut off by strangulation or pulmonary congestion; the mucous membrane was red and swelled, nearly or completely obliterating the respiratory passage. Death, however, was attributed to spasm: now, you are aware that wherever there is a phlegmasia the neighbouring muscles contract irregularly, and are seized with spasm; but do not believe that spasm is the fundamental character of the complaint. These spasms are always in ratio of the obstacle to respiration, and the more or less nervous constitution of the patients. They may undoubtedly aid in the suffocation; but the obstacle to respiration from the tumefaction of the mucous membrane, and diminution of air-passage, are sufficient to account for it; besides which pulmonary or encephalic congestion may be the immediate cause of death. Dissections, related by many authors, will suffice to shew you how possible suffocation is in these kinds of phlegmasiæ.

Would you form an idea of their danger, observe whether the head is injected, whether the respiration is incomplete, the skin livid, whether the patient becomes livid: if so there is danger. But, so long as there is only pain, agitation, impatience, hydrophobic, and nervous symptoms, there is nothing to fear: all this is made to disappear by general bleedings, if the head and lungs are congested; by leeches to the larynx, if it alone is implicated, and these means are seconded by pediluvia and sinapisms. Any consecutive phlegmasia of the head or lungs must be treated in like manner.

The laryngeal phlegmasia, of which we now speak, may be connected with that mentioned in the preceding part of this lecture—may be either its cause or effect, or may be so complicated with it as that the inflammation, after being external, becomes internal, and *vice versa*, or it may be both at once. However, there is no specific treatment for this case, no antispasmodics, nor narcotics, such as musk, camphor, belladonna, &c.; it is still a phlegmasia to be combated by antiphlogistics, and then lulled by anodynes, in susceptible persons.

There is a disease that has been likened to this laryngitis, and has received the name of the "asthma of Millar." Much has been said of it, and there are doubts whether it should be constituted a specific order; for my part I believe it to be distinguished by a pulmonary congestion, depending on some disorder of the circulating system.

Foreign Medicine.

State of the Medico-Legal Doctrines concerning Insanity in Germany. By M. Taufflieb.

(Continued from page 184.)

2. *Antecedent Diseases.*—Hypochondriacism, hysteria, epilepsy, the puerperal state, are morbid conditions, that, in the opinion of all psychological physicians, facilitate the development of instinctive monomania. Whenever, therefore, any of these diseases has been ascertained as exciting in a person accused of a crime, the circumstance has always been of considerable importance in the eyes of the medical jurist, particularly in cases where the very nature of the outrage gives cause for suspecting a lesion of the mental faculties. Such was the case in the instance of a young incendiary, in whom epileptic symptoms had preceded the outbreak of monomania, and whom the Berlin medical council considered as not being a free agent, and incapable of discernment at the time of the act. Among the facts on which this judgment was founded, stress was especially laid on the epileptic symptoms, to which the patient was subject, and which are known from experience, frequently to alternate with certain derangements in the intellectual functions.

3. *The actual physical symptoms*, which announce certain lesions in the digestive functions, and the circulation, have been also regarded, and with justice, as capable of furnishing important data respecting the mental condition of the person to be examined. The majority of German physicians have ever had a care to refer in their reports to the influence exercised over the nervous system by chronic affections of the intestinal canal, certain derangements of the circulation, such as irregular menstruation, affections that might induce secondary disorders, such as sanguineous congestions of the head, &c. These various alterations are recognised by a series of symptoms that cannot escape the intelligent physician. Doubtlessly these pathological phenomena are not necessarily so much connected with the existence of monomania, as that it shall be sufficient merely to ascertain the former in order to admit the existence of the latter; yet, as they have been observed in

the majority of monomaniacs, it cannot be denied that their presence in doubtful cases of mental alienation may become vastly important in corroborating the value of many other circumstances that tend to throw light on the medico-legal investigation. Their coincidence, for instance, with the age of puberty in a young incendiary, who was known to have acted without any motive of malice or interest, may lead, in some cases, to positive conclusions; and this has actually been found to obtain in several medico-legal trials recorded in various works*.

4. *The character and habits of the accused* may also furnish valuable means of distinguishing the really diseased man from the criminal. The appreciation of this kind of symptoms does not belong exclusively to the judge, as might be thought, and has been asserted. As mental diseases cannot in general be ascertained by merely material investigation, the physician must have recourse to those of another order if he fulfils his task satisfactorily. In fact, some of the best indications of the disease are to be found in the antecedent conduct of the monomaniac, and, he may from them, be proved to have been induced to an act of which he was naturally incapable. We may imagine a villain killing without motive, and from mere cruelty; but how great is the difference between the habits and character of such a one, naturally ferocious as he is, and the habitual behaviour of the unfortunate monomaniac, who may very frequently be cited as an actual model of mildness and prudence.

5. *Absence of precaution* in the performance of the act, is another thing that distinguishes the man urged on to murder by a disease, from him who acts freely, and with discretion. Were the monomaniac able, in certain cases, I do not say to restrain himself from killing or setting fire, but only to stay, for an instant, the moment pointed out for the explosion of his fury, he clearly would not choose for the purpose of killing, a time when, for instance, he was surrounded by persons ready to seize him, or for the purpose of setting fire, the open day, and a house filled with active persons, who would be able to extinguish the fire immediately. Made-

laine Klein, aged seventeen, entered the house of M. Becker, at Miesenhein, as a servant, on the 7th of February, 1834. In this house, fire broke out at the following periods:—the 12th of February, in the evening; the 13th, at eight o'clock in the morning; the same day, between ten and eleven in the morning, and between two and three in the afternoon; and on Sunday, the 15th, at three in the afternoon. These repeated, and frequent attempts, at firing, coinciding with the entrance of the girl Klein, necessarily led to the author of them, who indeed could not have taken more effectual steps to betray herself. The Beckers immediately sent the girl back to her friends, not as a criminal, for they could not suppose any intention on her part to do harm, but as insane and "bewitched," to use their own expression. Sometime after, she went into another service, but very soon after, fire broke out in the house of her new master in the morning, and unfortunately, raged so quickly as soon to reduce it to ashes. Suspicion fell on the girl Klein, and she readily confessed herself the author of the various fires, at the same time that she bitterly deplored the mischief she had committed. A trial was instituted, but the existence of an instinctive monomania was very soon proved in this unfortunate girl*.

6. *The absence of all motive* is what more particularly marks the act of the monomaniac. Not only are they unable to promise themselves any advantageous result of their acts of violence, but on the contrary, frequently deprive themselves of all they hold dearest in the world. All medical jurists have paid especial attention to this peculiarity: no doubt, this circumstance it was which gave the first notion of the existence of an instinctive monomania, confirmed, as it has since been, by a lamentable number of instances. The cases in which the appearance of criminal motives coincides with the existence of a real monomaniac, may present great difficulties, and require the physician to have recourse, in these circumstances especially, to all the other signs that enlighten his researches.

Such are the characters of instinctive monomania, to which the attention of medical

* Clarus, Beitrage zur Eskenntnis, &c., Leipsic, 1828.—Henke's Journal, 1825.

* Henke's Journal, 1825.

jurists have been more particularly called, and on which many of the medico-legal decrees in Germany have been based. By keeping them constantly in view, I hold it will be possible to avoid, in the majority of cases, the grievous mistake of congregating men morbidly affected, with others that are actually criminal, and vice-versâ.

Rational Monomania, or Partial Insanity.—According to M. Esquirol, this disease is “that kind of lunacy in which the insane person, retaining the use of almost this entire reason, is only delirious on one object, or a limited number of objects, feeling, reasoning, thinking, and acting in other respects as he felt, thought, and acted previous to his malady.”

The first question that presents itself in the examination of this subject is—*when is there partial delirium?* or in other words, *how far can a deep-rooted, but erroneous conviction regarding one or several objects, be made to constitute a real monomania?* I go to show how this question is handled and solved in Germany.

M. Hoffbauer makes monomania consist in a vicious relation between the senses and the imagination, that causes the fictions of the latter to be taken for real impressions. This definition has been considered incomplete, since it does not include all the conditions of insanity. The vicious relations mentioned by Hoffbauer may exist without any necessary disturbance of reason arising. Professor Clarus, who has more particularly dissented from this definition, relates, among other instances, that of a well-educated man, who was night and day tormented with all manner of auditive illusions, by voices now near, now distant, that sometimes called him by name, at other times abused him, &c.* Very frequently it was with the greatest difficulty that he persuaded himself that the sounds were illusory, and sometimes he found it impossible to attribute them to other than real impressions. Yet M. Clarus does not consider this man as monomaniac, because he did not present the essential characteristics of that state to be hereafter mentioned.

M. Henke considers monomania in pretty nearly the same light as Hoffbauer. With

him the disease is characterized by the incapability of distinguishing internal and purely subjective sensations from external, objective impressions; this error being the starting point of the extravagant acts to which the monomaniac is driven.

M. Clarus does not consider the illusions of the senses and hallucinations as a positive and characteristic sign of monomania: “these hallucinations,” says he, “may become a source of error and false judgments, but do not necessarily produce partial insanity.” According to him, monomania only exists when the fictions of the imagination take exclusive possession of the intellect, cross it in its operations, cause it to lose sight of the relations that ought to be taken into consideration, and in this manner disturb the rectitude of the judgments. Thus an erroneous conviction, however deep it may be, does not suffice to constitute a mental malady even in those cases where this conviction originates in some perversion of the perceptive and sentient faculty. More than this, the error must have so entered into the mind, as to exercise an absolute command over it, and mar the free exercise of the intellectual functions.

In order more lucidly to develop the great psychological and medico-legal question before us, it will not be without utility to review a certain number of cases of monomania developed under the influence of different moral conditions; this will enable us to observe how far the principles laid down find applications in practice.

First Case.—A woman, for some time a prey to domestic griefs, planned putting an end to herself. Not, however, having the courage to commit suicide, she thought of setting fire to a house, in order that she might be condemned to death. She put this into practice, and immediately went to acquaint a magistrate of her crime. Was this woman in a state of mental alienation? Several physicians have endeavoured, in similar cases, to demonstrate the existence of monomania by leaning on the very nature of the criminal fact, which they look upon as a proof of insanity. This opinion is refuted by the argument that the act was not in itself absurd, since it was adapted to the fulfilment of the end for which it had been committed. Besides, according to the prin-

* Henke's Journal, 4th Supplement, 1824. VOL. VIII.

ciples above advanced, even an irrational action is not rigorously sufficient to prove the existence of mental alienation. But if it be considered that suicidal desires themselves suppose a perversion of the intellectual faculties—constituting the variety of monomania to which M. Esquirol has given the name of *lypmania*—the question is limited to the inquiry whether the desire to take her own life arose in any lesion of the mental faculties. In this light it was that the question was viewed by Dr. Pfeuffer, of the Bamberg hospital, who was charged with the investigation of this woman's case. The result of his inquiries did not prove the existence in this woman of a confirmed monomania, but of a melancholy of sufficient intensity to prevent the free exercise of the intellectual faculties. He, however, was of opinion, that though she ought not to suffer the utmost rigour of the law, she should, nevertheless, be severely punished, since it cannot be maintained that she acted without any discernment whatever.

Second Case.—Platner gives an account of a young man who killed his comrade with a pistol shot, imagining that the latter was endeavouring to put an end to him by sorcery. He was well aware that the punishment of death awaited him; "but," said he at the bar, "a thousand times better to die on the scaffold than miserably perish by magical arts." This man Platner pronounced to be affected with monomania, and his opinion was fully adopted by the Leipsic faculty. Now it is to be remarked, that the existence of monomania was here admitted not because the man had acted from an imaginary motive based on a popular prejudice (a prejudice, moreover, of very ordinary occurrence, and perfectly compatible with a normal condition of the mental faculties), but because this chimerical fear had obtained such dominion over him, that far from being stopped by the fear of capital punishment, he saw in it a preferable prospect to the lingering and cruel death by which he imagined himself to be threatened. This wretched man's case was similar to that of those maniacs whose homicidal fury is provoked by a false and inappropriate application of the right of self-preservation.

Third Case.—A woman that had been long tormented with violent fits of jealousy, at-

tempted to kill the servant girl, whom she suspected of having a liaison with her husband. The murder had been perfectly premeditated; she had induced the girl to enter a certain room, and there, aided by a man, whom she payed to assist her in the execution of her design, she placed a rope round her intended victim's throat to strangle her. Happily, the girl freed herself from her grasp by a sudden movement, and saved herself by leaping through the window. Dr. Elwert in his report on this woman's case, does not endeavour to prove that the jealousy itself was an excuse for the deed; but he goes to shew that passion long cherished and brooded over, had altered the intellectual faculties of the accused, and induced an actual monomaniac state*.

Fourth Case.—Pyl gives an instance of a woman habitually tormented with religious scruples, who killed her neighbour's child, to whom she was much attached: "death alone," she said, "can withdraw this child from the seductions of the world—you ought therefore to kill it." This woman was looked upon as a monomaniac; I have introduced the case here, in order that, as a case of evident monomania, it may be compared with the following case, which appears to me perfectly analogous, but which has been judged very differently.

Fifth Case.—Peter Nielsen, a journeyman joiner of Slagelse (Denmark), on the 27th of April, 1827, drowned his four youngest children, whom he tenderly loved, in order to save them from the misery of beggary. This man was generally esteemed for his prudent conduct and peaceable disposition, as was testified by his neighbours at his trial. For some time the bad state of his affairs had preyed on him, and the supposed approach of beggary drove him to despair. The following thought, thus expressed by himself, was ever before him: "you must keep your poor children from the misfortune that threatens them, by putting them to a death that is a thousand times preferable;" following up this thought, he committed the horrid deed. Immediately after the act thus committed under circumstances which supposed some degree of reflexion on his part, Nielsen calmly went and ac-

* Henke's Journal, 1834.

cused himself to the magistrates, without expressing the smallest regret. The indictment was framed, but the question of monomania was altogether avoided. Nielsen, it was said, ought to have resisted the horrid idea that drove him to the murder. The accused confined himself to a declaration that he considered it was for the welfare of his own dear children that he had brought them to so cruel an end; he was condemned to death, but the sentence was commuted to perpetual imprisonment. Comparing this case with the fourth, on the principles of monomania above laid down, we arrive at similar conclusions. It may be remarked, that in both cases the perpetrators of the murder believed that they were acting for the benefit of their victim; if this consideration saved one, it ought to have saved the other. The woman spoken of by Pyl, a slave to fears on the subject of religion, had fallen into a real state of monomania; had not the unhappy father also his reason disturbed by fears concerning the future lot of his children? Had not his mind been led astray by a morbid degree of paternal tenderness, would he not made had such reflexions as these?—Death is not the only means of rescuing my children from the misfortunes with which I believe them to be threatened; at a future time they may find in the labour of their bodies, resources that will place them above the beggary that I presage. That such simple and natural reflexions should not occur to a man, his intellectual faculties must have been necessarily bound down and confined by a fixed idea—in other words, he must have been in a state of confirmed monomania. Similar considerations caused monomania to be admitted in the woman of Case 4; in fact it was easy to see that exaggerated fears for the future fate of her child had mastered her reason so as to make her lose sight of the most simple reflexions, and feel the absurdity of her conduct. True, she was at the same time led astray by another fear—that of failing in the accomplishment of her supposed duty; but in analysis this other cause of mental alienation differed not from that of Nielsen.

On reflecting on the different varieties of monomania that we have passed in review, it appears to me, that we may admit the

following conclusion. In order to establish partial delirium in a patient, his intellectual faculties should be shewn to be actually governed by an idea, which at the onset may not have been absurd; whilst eccentric thoughts, erroneous convictions, vicious relation of the senses, and all the illusions dependant thereon, are to be considered as insufficient to constitute in themselves a real monomania.

(To be continued.)

—o—

Reviews.

A Treatise on Pulmonary Consumption; comprehending an Inquiry into the Causes, Nature, Prevention, and Treatment, of Tuberculous and Scrofulous Diseases in General.
By James Clark, M.D. F.R.S. 8vo. pp. 399. London: Sherwood & Co.

(Concluded.)

CHAP. IX is on *Tuberculous Diseases in Animals*. The more extended cultivation of comparative anatomy and physiology, of late years, is gradually preparing the way for what may possibly turn out a very important branch of medical knowledge—*comparative pathology*; nor is it at all unlikely that, at some more advanced period of science, a comparison of the effects of therapeutical agents on the system of different animals may throw much light on the theory and practice of medicine. If a practitioner of human medicine were to undertake to cure his horse of pneumonia, nothing would be more natural than that a part of his treatment should consist in the exhibition of a strong cathartic; but he might be somewhat surprised at an occurrence extremely familiar to veterinary practitioners, namely, an immediate metastasis of the inflammation to the intestines, and the speedy death of the animal from acute enteritis: such is the variety of relation between different parts of the economy in different animals, and such the diversity in the operation of medicines upon them. Dr. Clark's chapter on tuberculous disease in animals is an interesting one, and we hope that succeeding authors will follow his example in drawing from the resources of comparative pathology, whenever the subject admits of it. We shall

make no apology for extracting nearly the whole of this chapter.

"Tubercles have been found in many orders of the mammalia, carnivorous and herbivorous, in birds, in reptiles, and perhaps in insects:—among the mammalia, in the lion, dromedary, antelope, deer, horse, cow, sheep, goat, domestic pig, monkey, guinea-pig, hare, rabbit, squirrel, and porpoise; among birds, in the psittacus erythacus, and some other macaws and parrots, in the flamingo, turkey, house-sparrow, and domestic fowl. Mr. Owen, Assistant Curator of the Museum of the Royal College of Surgeons, informs me that he has discovered tuberculous disease in the following animals, which died in the gardens of the Zoological Society:—*felis caracal*, *Persian lynx*; *felis tigris*, *tiger*; *paradoxurus typus*, *paradoxure gennet*; *viverra Rasse*, *civet cat*; *herpestes mungos*, *Indian ichneumon*; *nasua fusca*, *brown coati mundi*; *ursus Thibetanus*, *Nepdl bear of the Himalaya Mountains*; *tapirus Americanus*, *American tapir*; *alces Americanus*, *American elk*; *simia satyrus*, *ourang outang*; *Macacus cynomolgus*, *Macaque monkey*; *M. radiatus*, *bonnetted monkey*; *M. Rhesus*, *pig-tailed monkey*; *cercopithecus sabæus*, *green monkey*; *papio maimon jun.*, *Mandrill baboon*; *lemur nigrifrons*, *black-fronted lemur*; *lemur macaoco*, *ruffed macaoco*; in an *Eskimaux dog*, and in the lungs of a large serpent (*Python tigris*).

"The morbid appearances presented on examination of the animals enumerated, bear a close analogy to those observed in man: the lungs, spleen, mucous membrane of the intestines, the liver, mesenteric, bronchial, and lymphatic glands, are the organs most frequently affected. We are, however, better acquainted with the morbid anatomy of monkeys, because, of all animals, that family is most subject to tuberculous disease; indeed, nearly all the monkeys in our menageries die tuberculous. Dr. Reynaud, of Paris, has made some interesting researches in this department of comparative pathology, and has published an excellent memoir on consumption in the monkeys at the Jardin des Plantes. In fourteen of these animals he found the lungs containing tubercles, and in many cases they were almost entirely converted into tuberculous matter. In three monkeys the disease was confined to the lungs exclusively; in the others various organs were affected. The larynx was ulcerated in two cases; the bronchial glands were always more or less tuberculous, and, in one instance, they were so much enlarged as to obliterate the left bronchus, and prevent respiration in the corresponding lung, which was much contracted. The spleen, in six cases, was much diseased, being enlarged and adherent to the peritoneum. The blood in the cells formed reddish clots, in

the midst of which were tuberculous points. The tuberculous disease was found in various stages of softening, and sometimes there were caverns lined with a false membrane. In one case the tubercles in the lungs were isolated and crude, while in the spleen they were large and softened in the centre; showing that the spleen was the organ in which the tuberculous matter was first deposited.

"As in the human species, so in animals the disease occurs at all ages. MM. Andral and Dupuy have even observed it in the fœtus of the sheep and rabbit.

"My friend, Mr. Newport, a comparative anatomist of great promise, whose name is already favourably known by his researches into the minute anatomy of insects, has favoured me with an account of what he believes to be tuberculous deposits in that tribe. In the larva of the sphinx ligustri, or common privet moth, he met with a peculiar matter disseminated in small, irregular, aggregated masses, white, opaque, and of a cheesy consistence, over the whole internal surface of the insect, between layers of very delicate cellular tissue. These masses were most numerous among the muscles; on the exterior of the alimentary canal, particularly the stomach; on the secretory silk glands, in the biliary ducts, and on the nerves. In the carabus catenulatus, or ground-beetle, and in the staphylinus olens, both carnivorous feeders, he noticed similar deposits of more uniform and much smaller size in the cellular and pulmonary tissues: he also detected appearances similar to those observed in the sphinx ligustri, in the common cray-fish, the astacus fluviatilis of Leach. It is worthy of remark, that the sphinx was fed upon stale leaves of the privet for some days previously to examination, the unusual wetness of the season having prevented a fresh supply."

Our author has received the following additional observations from Mr. Newport.

"The concrete matter which I believe to be tuberculous is deposited chiefly between the layers of cellular tissue which surrounds the muscles, and exists throughout the whole body of the insect: it is in the form of irregular, opaque, white masses, or granules. It sometimes occurs in the secretory organs, where it is much softer than when disseminated through other textures, and is of an opaque, white colour, very different from that of the natural secretions. When found in the salivary vessels, and in the rudiments of the ovaries in the larva, it occurs in small patches, and in some specimens it has been observed in the salivary vessels only. The skin of the diseased insects (if in the state of larva) is generally slightly discoloured, dry, and shrivelled; and they are deficient in the plumpness of healthy individuals. In order to observe this substance, the insect should be placed

in alcohol for a few days, during which time the matter becomes hardened, and is more readily distinguished from the fat and different textures.

"From the result of an experiment upon the larvæ of the *sphinx ligustri*, I am led to conclude that these depositions in insects may be produced almost at pleasure. About eighteen or twenty larvæ of this species, collected just after entering their last skin, were confined in a box closely covered and kept, uncleaned, in a room the temperature of which ranged from 65 deg. to 80 deg. Fahrenheit, and were supplied with food of deteriorated quality. By this means their growth and the period of their changing were retarded. In order to produce a sudden impression of cold upon them, they were repeatedly plunged into cold water. The result was, that in the whole of them deposits were found, and generally in the secreting organs.

"Whatever may be the nature of this substance, it does not appear to be very common, in favourable seasons, in the larvæ of the sphinx while in their natural haunts. Upon examining many specimens, apparently quite healthy, soon after collecting them, I could find but few, perhaps scarcely one in ten, in which the disease was conspicuous.

"Since making these observations, I have discovered the disease in the common shrimp (*Cancer crangon*: Linn.), and in the scarce oil-beetle (*Meloë cicutricosus*: Linn.), both of which are vegetable feeders, the former feeding upon fuci and sea weed, and the latter upon the wild ranunculi, taraxicum, &c. The shrimps were collected from their natural haunts, and immediately placed in alcohol for preservation: upon examination some months afterwards, I found the disease more common in these instances than in any I have yet met with. The matter was disseminated in small granulated masses through the whole body, even within the substance of the nervous columns. In the *meloë* the masses existed upon the alimentary canal, hepatic vessels, and within the trachea, and there was one large mass, much softer than the others, within the substance of the right supra-oesophageal ganglion, or brain, occupying at least one third of the ganglion itself."

As Dr. Clark observes, the existence of tuberculous disease in insects requires to be confirmed by further observations; those just quoted are, nevertheless, highly worthy of the attention of pathologists. The following note is appended to this chapter.

"All the milch cows in Paris, and no doubt elsewhere, become tuberculous after a certain period of confinement. I have been informed, that for some time after the disease has commenced, the quantity of milk obtained is greater than before, and

that their flesh is more esteemed by the unsuspecting epicure than that of the healthy animal. A circumstance of the same kind is mentioned by Aristotle, who observed tubercles in the pig, the ox, and the ass; in regard to strumous pigs, he says, that when the disease (*grandines*) exists in a slight degree, the flesh is sweeter (*caro dulcior est*). *Historia Animalium*, lib. viii, cap. 21."

Our author seems here to have mistaken Aristotle's meaning. The tubercles of pigs, alluded to by the Greek philosopher, are not the tubercles of modern pathology, but a disease peculiar to pigs: χαλαζονται δε μονον των ζωνων αν ισμεν υς. (*Hist. Animal*, viii, 21, Ed. Du Val.) This is represented as occurring chiefly on the legs, the neck, the shoulders, and under surface of the tongue. A disease, *κρανγος*, which the Latin interpreters render by the word *struma*, is indeed mentioned as occurring in pigs and in oxen; but in neither is it represented as at all similar to scrofula: in pigs two diseases are called by this name, *pain and heaviness of the head*, and an *incurable form of diarrhæa* (viii, 21); in oxen the disease thus named is stated to consist in increased heat of the breath and frequency of respiration, and to be analogous to *fever* in the human subject: ο εστιν εν τοις ανθρωποις πυρετος τουτο εστιν εν τοις ζουσι το κραυραν (viii, 23); it is added, that the animal soon dies, and that on dissection the lungs are found putrid; in fact, the disease in question appears to be acute inflammation of the lungs.

Chap. 11 treats of the *Pathology of Consumption and Tuberculous Diseases in general*. In that condition of the system which constitutes the tuberculous cachexia, a peculiar matter is deposited by the extreme vessels in various tissues of the body, and this matter, however its appearance may be modified by the structure of any particular tissue, presents certain characters by which it may generally be recognised.

The disease of which the presence of this matter constitutes the distinctive anatomical character, has been variously named in different parts, as *scrofula* in the external glands and the bones, *phthisis* in the lungs, *tubes* in the mesenteric glands, &c.

"This matter, however denominated, is now generally considered by the best pathologists as a morbid unorganizable product, having for its remote or predisposing cause a cachectic state of the general system, and for its immediate production some anomalous

action of the vessels of the part in which it is deposited, but with the nature of which action we are not acquainted. No constitution, no temperament, age, sex, or race, as we have already seen, is entirely exempt from the liability to this disease, although the disposition to it is strongest in that condition of the body called lymphatic, in the age of infancy, in the female sex, and in the negro race.

"In whatever light we may regard tuberculous cachexia, we shall find that its phenomena are explicable only by admitting that it depends on a general modification of the whole animal economy; and that the notion of its being the morbid degeneration of any organ or tissue, or of any particular system, or the morbid modification of any single fluid, is founded on limited views of its nature and laws. The deposition of tuberculous matter in any of the tissues or organs of the body is the result of previous changes in the general system, cognizable, as I have endeavoured to show (Chap. I.), by the physical condition of the patient—a condition quite distinct from mere debility, and therefore inexplicable on the idea of a difference of force or tone of the system; and which, though very generally accompanied with a feeble organisation, is not inconsistent with too great development and inordinate action of particular parts, and even with considerable physical power of the system.

"The universality of the peculiar condition of the system just referred to, necessarily modifies the structure of every part, the nature of every fluid, and the qualities of every secretion. The osseous system is more spongy; the muscular is flaccid and imperfectly developed; the cellular tissue is singularly lax; the vascular system is weak and irregular in its action, and is subject to local congestions from the slightest causes; the skin is generally thin and soft, or thick, coarse, and dry, and is affected by various diseases, apparently arising from the morbid condition of its function of secretion, which, in tuberculous subjects, is always more or less deranged. The mucous system is peculiarly susceptible of disease; and, on the application of the slightest causes of irritation or congestion, matter, differing more or less from the healthy secretion, is poured forth in large quantities from the surfaces of the mucous membranes. The blood is serous, and deficient in fibrine and colouring matter. The lymphatic system, being more intimately concerned in the function of nutrition, is more peculiarly affected; and hence it has been by many considered as the original seat of the disease.

"These morbid conditions of both fluids and solids are examples and proofs of a defective organisation. In the healthy state of the nutritive function each part separates the materials proper for its nutrition, and converts them into its own particular tissue

or structure; and the various secreting organs secrete their peculiar fluids—some to be applied to the purposes of the animal economy, others to serve as vehicles for eliminating effete and useless matter from the system. It is necessary to the maintenance of health that both these functions—the nutritive and excretory—should be performed in a certain ratio; and thus it may happen that imperfect assimilation on the one hand, or defective secretion and elimination on the other, shall give rise to such a disordered state of the constitution as may ultimately terminate in tuberculous cachexia.

"This comprehensive view of the nature and causes of tuberculous cachexia, and of its influence on the secretions and on the products of diseased action, leads to the conclusion that tuberculous deposits are always at first fluid, and that the concrete form, in which they are commonly found, arises simply from the absorption of the more fluid part, and is in many situations dependent chiefly on compression, as is shown (p. 122); and I have no difficulty in conceiving that the matter formed in certain cutaneous eruptions, and that thrown off from the free surfaces of mucous membranes, would have assumed all the characters of crude tubercle, had it been confined in the parenchyma of organs, or the extreme bronchial ramifications, &c."

Dr. Clark has some original views with respect to the production of tubercles, which he introduces by expressing his willingness to incur the imputation of yielding a little to theory, rather than leave unsaid that which he believes may be of practical value to his readers. He is perfectly right: theory is indeed too much decried in the present day, by certain persons who style themselves "practical men," the English of which sometimes is, "men who cannot think;" all discoveries are theories till they are established by facts, and he who never entertains a theory, can never be an intelligent observer or experimenter, for he has nothing to direct his observation in one channel rather than another; theory is pernicious only when misused—when mere probability is allowed to usurp the place of demonstration.

"It is reasonable to believe," says our author, "that the remote causes of consumption and of tuberculous disease in general, however various their mode of operation may appear, act by inducing some peculiar or determinate derangement of the system—some positive pathological condition or conditions, which, being constantly present wherever tuberculous disease is found, may be regarded as necessary to

its production. Although I readily admit that we cannot fix on any pathological condition, the presence of which is absolutely necessary to the production of tuberculous cachexia, there is one so very generally present, as in a practical point of view to demand our especial attention. I allude to a state of congestion of the venous system of the abdomen, which has been termed abdominal plethora.

"In the present defective state of our knowledge of the laws which regulate the animal economy, we can neither trace the various functional disorders which lead to abdominal congestion, nor understand the processes which connect it with tuberculous cachexia. But although we cannot perceive every link of the chain, we have, I am persuaded, a good notion of the chain itself. It is not, I think, difficult to understand how abdominal plethora, by impeding the functions of the nutritive organs and diminishing the power of the circulation, should lead to a state of general cachexia, and how cachexia should lead to the deposition of tuberculous matter. But whether it be understood or not, it is a matter of fact that abdominal plethora is an almost constant concomitant of tuberculous cachexia.

We are doubtless ignorant of many of the morbid conditions in the animal economy which combine to give a determinate effect to abdominal plethora; but the causes which are well known to give rise to the disordered state of health which precedes and leads to tuberculous cachexia, and the most successful means of correcting this, alike support our opinion of the presence of abdominal congestion, and afford a rational explanation of the phenomena of the disease.

"Congestion of the venous system of the abdomen has long been regarded as a fruitful source of disease. It was familiar to the pathologists and physicians of the last century, and, although less attended to, has not been overlooked by the moderns. Such of my readers as are conversant with the writings of the German physicians of the middle of the last century, particularly Stahl, Hoffmann, and, above all, Kaempf and his disciples, will be aware of the extensive influence of this state of the abdominal circulation, and the importance attached to it at that time. Referring to those works where the facts upon which the doctrine rests are fully exposed, I shall confine myself to a few remarks more particularly bearing upon my subject, and which it is but justice to myself to say were established in my mind, as the result, or supposed result, of observation, before I became acquainted with the German doctrines of abdominal infarctus.

"Of the various phenomena presented by a person strongly predisposed to or labouring under tuberculous disease, a congestive state of the abdominal venous circulation will, I believe, be found, on close

investigation, to be one of the most constant. In children originally of a strumous habit, we observe a constant disposition to this congestive state of the abdominal circulation; and unless we succeed in obviating it, they become tuberculous, and die early in life. In youth we find the same state of congestion as a precursor of tuberculous cachexia; at this age it manifests itself often by epistaxis, by hemoptysis, and even by hemorrhoids; but it is during the middle period of life, from thirty-five to fifty, that it is accompanied with more marked symptoms, such as dyspepsia and its various concomitants, which exist often for a very considerable time, and not unfrequently obscure the pulmonary affection till tuberculous disease has made extensive progress.

"Congestion and disordered function of the abdominal viscera have long been remarked as causes of consumption: they were regarded by Kaempf and his disciples as giving rise to most of the chronic diseases of the chest. Portal and several other foreign authors have also remarked the connexion of consumption with abdominal disease, but in a manner so vague and undefined as to attract little attention. In this country, likewise, several authors have noticed the congestive state of the abdominal circulation, more especially congestion and deranged function of the liver, as a frequent source of similar disease; among these authors may be particularly mentioned Mr. Abernethy, Dr. Wilson Philip, and Dr. Ayre; and, more recently, Dr. Todd, in his comprehensive article on 'Indigestion,' already referred to, has given in his pathology of *strumous dyspepsia*, views corresponding exactly with those just stated. 'The phenomena of this disease,' he observes, 'its whole complexion and character, sufficiently indicate a congestive state of the hepatic system; and were we to assume, as the proximate cause of the disease, a plethora of the vena portarum, both in its roots and branches, we should be furnished with the means of explaining all the symptoms of the disease; for we should readily understand how, in this state of the circulation of the abdomen, the mucous surfaces of the intestines should be full of blood, consequently subject to inflammatory irritations and disordered functions, whilst the peculiar office of the duodenum renders it specially liable to be the seat of them: how the function of the liver being deranged, all the other consequences of this disease may follow: for though we may not know precisely what share the functions of the liver have in the process of sanguification, we can easily understand how it may interrupt and interfere with this process, leading to a cachectic state of the fluids, from which result tubercles and other semi-vital and semi-organic productions. Nor does it seem an improbable supposition that a disposition to abdominal

plethora, or an organization which favours it, may be transmitted by parents to their offspring, more especially in dyspeptic and hypochondriacal persons, in whom the chylipoietic viscera, under constant irritation, are necessarily also in a state of congestion: we might thus explain how the strumous cachexia is continued, and how it is generated.

"I do not, however, wish it to be inferred," continues Dr. Clark, "that I consider abdominal congestion as a pathological condition that must necessarily be followed by tuberculous disease. In strong and healthy constitutions nature has provided processes in the form of diseases for the relief of this morbid condition, of which gout, hemorrhoids, and cutaneous diseases offer the most ready examples. When nature or the constitution has not power to operate these corrective processes, that morbid condition is induced by abdominal plethora which leads to the formation of tubercles. The stronger children of gouty parents inherit the gout; the more weakly become tuberculous. In the history of the diseases of families, it is matter of common occurrence to observe the gouty constitution gradually degenerate into the tuberculous. On the other hand, neither do I mean to maintain that the morbid condition of body which precedes the formation of tubercles must necessarily be preceded by abdominal plethora. We can easily understand how that morbid condition may be brought about without the intervention of abdominal plethora. All I contend for is, that in the ordinary course of civilized life it is the most general mode by which tuberculous cachexia is induced, and on that account the most important to be known. Of the various other conditions of the system which may contribute to the production of tuberculous cachexia, little is known: I have already noticed as a very probable predisposing cause, a feeble heart—a condition which a congestive state of the venous system tends strongly to augment."

The three remaining chapters treat of the prevention of consumption and tuberculous diseases in general—of the treatment of tuberculous cachexia—and the treatment of pulmonary consumption. These are points of vast practical importance, but which do not afford much scope for original observation. Many judicious remarks will be found on the most probable means of preventing the tuberculous diathesis from developing itself into actual disease, and on the various remedial agents recommended by different practical writers in consumption. On *blood-letting*, Dr. Clark gives the following as his general opinion.

"The employment of general bloodletting,

and even the local abstraction of blood, in consumption, requires, in my opinion, great judgment and circumspection. The more general error is the abstraction of too great a quantity of blood at a time; treating the disease as if it were a purely inflammatory one, and forgetting that the inflammatory symptoms are merely consecutive upon tubercles, and that the constitution of the consumptive patient is little capable of replacing the blood too often lavishly drawn. But keeping clearly before us the condition of our patient, the nature of his constitution, and the pathological condition of the lungs, and considering that the utmost benefit which we can generally expect or derive from the practice, is the removal or diminution of congestion or inflammation, complicated with and often dependent on the presence of tubercles; keeping all these circumstances in view, blood may be abstracted with advantage at any stage of consumption, when the symptoms require it. 'In the present state of our knowledge,' observes Dr. Carswell, 'there is, perhaps, no practical rule regarding the local treatment of tuberculous affections, of equal importance with that which is founded on the pathological fact of inflammation being the frequent, if not the necessary consequence of the mere mechanical presence of the material by means of which we recognize the local existence of these affections. To protect the individual and the affected organ from the influence of all those agents, internal and external, which tend to create an inordinate degree of excitement, or favour the development of active congestion or inflammation, is the rule to which we allude, and to which there can be no exception in the treatment of tuberculous diseases.' After pulmonary congestion has been diminished by general bleeding, the abstraction of blood by means of cupping or leeches, when further depletion is necessary, has a very beneficial effect."

At the very commencement of phthisis, when the disease is ushered in with slight inflammatory symptoms, we have found no form of bleeding so effectual as the application of two leeches to the chest, repeated daily for several weeks together; a great impression is thus made on the local disease, without any considerable diminution of the patient's strength, an evil most carefully to be guarded against in the treatment of a protracted and wasting disorder.

Our author speaks favourably of the employment of *emetics* in the early stage of phthisis. Having alluded to the statements of Morton, Simmons, Parr, Bryan, Robinson, Reid, Marryat, Dumas, and Bayle, he gives the following statement of the recent experiments of Dr. Giovanni de Vittis, chief

physician to the military hospitals of the kingdom of Naples.

"In the military hospital at Capua, where the greater number of phthisical patients of the army are sent, antimonial emetics were tried in every case. From the 1st of May, 1828, to the 18th of January, 1832, there were sent out of the hospital perfectly cured, '*perfettamente guariti*,' forty cases of chronic catarrh, forty-seven of phthisis in the first stage, one hundred and two in the second, and twenty-seven in the third, making a total of two hundred and sixteen cures, one hundred and seventy-six of which were cases of phthisis. The mode of treatment consisted in giving, every morning and evening, a tablespoonful of a solution containing three grains of tartarized antimony in five ounces of infusion of elder-flowers, and one ounce of syrup. A second spoonful of the emetic mixture was given at the end of a quarter of an hour, when the first dose did not produce vomiting. The patients were at the same time put upon a light farinaceous diet, composed chiefly of rice, chocolate, and biscuits. If the antimony excited brisk purging, it was omitted for some days, and roasted ipecacuan and digitalis, which are said to produce wonderful effects in curing this diarrhœa, were administered in doses of a grain of each, and repeated every hour, or oftener, until the diarrhœa ceased.

"Although we may be permitted to question the permanency of all the cures, especially of those in the advanced stage, we cannot doubt that the practice must generally have produced very beneficial effects."

Dr. Clark informs us, that his own attention was first particularly directed to the use of this class of medicines in consumption, by the researches of Dr. Carswell.

"I have already stated, as the result of Dr. Carswell's researches, that tuberculous matter is first deposited on the free surfaces of mucous membranes, in all those organs into the structure of which they enter. In the lungs, the extreme branches of the bronchi and the air-cells form the primary and principal seat of tuberculous matter; from the structure of these parts, also, it is most likely to be retained. To prevent such accumulation and retention is a matter of the greatest importance. Now the power of emetics in augmenting and ejecting the bronchial secretion is well established; we can conceive, therefore, how the repeated action of emetics may prevent the deposition, or at least the retention, of tuberculous matter in the bronchial ramifications and air-cells, and thus prevent the localization of the disease, and give time for the correction of the constitutional disorder. The utility of emetics, in cases of threatened consumption, may be thus partly explained,"

Dr. Clark believes emetics to be useful, not merely by their action on the pulmonary system, but also by their giving freedom to the cutaneous circulation, promoting the biliary and other secretions, which are usually deficient in the tuberculous constitution, and diminishing abdominal congestion.

"The choice of emetics, the period of employing them, and the frequency with which they may be repeated, are not matters of indifference. Morton preferred, and generally prescribed squills; that used by Marryat, and called by him the "dry emetic," consisted of one grain of tartar emetic and three of ipecacuan, taken fasting, without drinking any liquids during its operation. When the diarrhœa was severe, his emetic consisted of four grains of ipecacuan and one of sulphate of copper. Dr. Senter prefers this combination of sulphate of copper and ipecacuan; he considers it one of the most safe and efficacious emetics in the *Materia Medica*. He gave from seven to ten grains of each in the morning fasting, and, if necessary, increased this dose. Reid preferred gentle doses of ipecacuan, sufficient to cause puking once or twice; and Simmons recommends sulphate of copper as superior to any other. Ipecacuan is, perhaps, the safest emetic for repeated use, although it is uncertain in its operation, I fear often owing to the difference in the quality of the drug. The emetics which act most quickly, such as the sulphate of zinc and sulphate of copper, would be the kind of emetics best suited for consumptive patients. The emetic should be so managed as to produce a very gentle effect, and a small quantity of fluid only should be taken to promote its action. For this purpose, tepid chamomile tea is particularly well suited. When the biliary system is much loaded, an antimonial emetic may be useful in the first instance, as it appears to possess more power than other emetics in promoting a free discharge of bile."

Dr. Clark adds, that his own experience of the operation of emetics has not yet been very considerable; its results, however, are such as to induce him strongly to recommend their further trial.

We must here conclude our review of this admirable work, which we do not hesitate to pronounce the best that has yet been published in this country on the subject of consumption. As such, we beg leave strongly to recommend it to the attention of our readers.

A Manual of select Medical Bibliography, in which the Books are arranged chronologically according to the Subjects and the derivations of the Terms, and in which the nosological and vernacular Synonyms of the Diseases are given; with an Appendix containing Lists of the collected Works of Authors, systematic Treatises of Medicine, Transactions of Societies, Journals, &c. &c. By John Forbes, M.D.F.R.S. one of the Editors of the Cyclopædia of Practical Medicine, and of the British and Foreign Quarterly Review. Royal 8vo. pp. 403. London: Sherwood, Gilbert, and Piper. 1835.

A WORK of this description has long been a desideratum in British Medical Literature. The profession is much indebted to the author and spirited publishers of this work, for the Cyclopædiæ of Practical Medicine, of Anatomy and Physiology, and we may add, for their forthcoming one of Surgery. These works raise our literature from the humble state in which it was previous to their publication. In France there were five Cyclopædiæ or Dictionaries of Medicine and Surgery, executed by the conjoint talent of the most eminent of the profession in that country, and amounting to one hundred and forty volumes octavo, each containing five hundred and fifty pages. In this country we had two thick volumes octavo, Hooper's and Cooper's Dictionary, admirable works as individual productions.

The spirit of the respected booksellers whose names are at the head of these remarks has led to the elevation of systematic treatises on medicine. They now bring forth a work which has no parallel in our language, and one of great utility to medical practitioners. It not only contains a catalogue of the best British, but also of foreign writers, and will be a work of reference. It is an enlarged republication of the Bibliography of the Cyclopædia of Practical Medicine and its appendix; it is published "with a view of filling, in some degree at least, a very important blank in the medical literature of this country, which has long been felt to exist."

Dr. Forbes has judiciously selected the best works, and properly excluded essays, theses, bibliographical notices, and indexes of medical periodicals. This work consists, as he well observes, of bibliography in the

strict sense of the word, that is, an account of books only. It is on this account he has excluded inaugural dissertations and minor works which are printed but not published (most of them are still born from the press), and also insignificant papers in the Transactions of Societies and medical periodicals. He remarks that some may suppose he has given undue preference to foreign works, but he replies satisfactorily—"But I have assuredly in this particular been influenced by no prepossession in their favour. I have noted the titles of such works as came before me, without regard to the language in which they were written; and if, in several instances, the German and French publications in the list are found to exceed the English in number, the true reason must be sought for in the fact of such publications being really more numerous in the preponderating language. While I have in no instance sacrificed an English work for a foreign one, I have, on numerous occasions, acted on the reverse principle; deeming it but proper, where the choice was limited, that the books in the vernacular tongue should have the preference, in a work intended for the English reader. It is hardly necessary to observe, that in the present condition of medical literature in this country, a bibliographical collection that did not include a fair share of the publications of France, Germany, and Italy, would be deservedly regarded as most imperfect." (Preface, p. vi.) We shall not comment upon the preceding statements, though it would not be difficult to do so. The author apologises for the imperfections in his work, which we must state was unnecessary.

The etymology and synonymy prefixed to the different articles, is a new feature in works of this kind. This will be highly useful to students and young practitioners.

"The greater number of the modern languages of which synonyms are given, are become, in these days, almost necessary acquisitions for the accomplished physician."

Though we highly prize this production, and consider it extremely valuable and interesting, we regret that the author has excluded writers on surgery, obstetrics, and therapeutics. We hope he will at no distant period fill up the blanks to which we allude, and in subsequent volumes complete the work

which he has commenced but left unfinished. We never could recognize the separation of medicine, surgery including obstetrics, and therapeutics; and we feel convinced that the bulk of the profession are of our opinion, and would hail with pleasure a manual of medical bibliography in the full acceptation of the term. Nevertheless, Dr. Forbes has executed his task with the greatest ability as regards medicine in the limited sense; but we trust he will act on our suggestion as regards this science in its most extended scope. In fine, we strongly recommend this work on the ground of utility. It cannot fail to obtain a large circulation, and it eminently deserves it. We have only to add that the synonyms are in Greek, Latin, English, German, Dutch, French, Italian, and Spanish—a polyglot dictionary which will be highly instructive to a large portion of readers.

—o—

A Treatise on Hydrocephalus, with the most successful modes of Treatment. By William Griffith, M.R.C.S.; Lecturer on Midwifery at the Westminster School of Medicine. 12mo. pp. 86. London: Longman and Co. 1835.

THE author of this little work has given a very good account of the nature and treatment of hydrocephalus. His symptomatology is graphic, his etiology comprehensive, his pathology accurate, and his treatment judicious. He has not gone however so comprehensively into the subject as he might have done, though he has executed his task with much ability. The work cannot fail to be useful to junior practitioners, and even the experienced will peruse it with advantage. It shews much ability, experience, and judgment, on the part of its author.

—o—

The London Medical AND Surgical Journal.

Saturday, September 12th, 1835.

THE INQUEST ON THE BOY STANY-
NOUGHT—MORAL INSANITY.

A VERY melancholy occurrence which took place in the Edgeware Road on Friday last, affords an illustration of a

form of insanity not hitherto recognised by jurists, and not universally familiar even to medical men: its existence, however, is not the less real; and as the subject is one whose relations to legal medicine are of considerable importance, we take this opportunity of directing the attention of our readers to it. The disorder we allude to is that which Dr. Prichard has aptly denominated *moral insanity*. A variety of insanity consisting in perversion of the moral disposition, unaccompanied by any disturbance of the intellect, was first distinctly described by Pinel, who termed it *manie sans delire*, or *folie raisonnante*. Esquirol recognised the reality of this species of madness; and Dr. Prichard, in his late admirable work on insanity, has given several well marked examples derived from his own experience, and that of other intelligent practitioners. Moral insanity, like derangement of intellect, may influence the general conduct of the individual, or it may be partial, constituting a variety of *monomania*; it may manifest itself by an entire change of character and habits, without any diminution of the reasoning powers; thus a man previously moral and decorous, shall addict himself to every kind of debauchery with a recklessness so extravagant as to induce a suspicion of his sanity, while at the same time he reflects on his degraded condition, and vainly opposes his reason to his perverted propensities; another, naturally of an amiable and generous disposition, becomes morose, selfish, and miserly to such a degree, that his most intimate friends can scarcely recognise the object of their former attachment; yet this man can judge of any question set before him as correctly as at any period of his life. Such cases as these, though recognised by the pathologist as grades of insanity, scarcely admit of being so regarded in the eye of the law, from the impossibility of ascertaining the precise boundary between depravity and disease.

Moral insanity, however, often assumes the more unequivocal form of a gloomy monomania, in which the unhappy sufferer feels himself irresistibly impelled to the commission of some crime of whose enormity he is fully aware—against which he may seek the aid both of reason and religion—and, tossed with the restlessness of an undefined disease, not unfrequently confides his case to the physician. An individual so circumstanced, cannot be held either morally or legally responsible for his conduct—he is a subject for the physician and the divine; and it is gratifying to know that a judicious combination of medical and moral treatment is sometimes effectual in freeing the mind from so fearful a possession; an interesting example of such success may be found in the last number of this journal, on the authority of M. Wildberg, under whose immediate observation it occurred. The case of Mr. Stanynought, alluded to at the commencement of the present article, is evidently one of monomania, and appertaining chiefly to the *moral* form of that affection—not purely so, however, because the patient seems at times to have justified the fatal act to his own mind by a *false process of reasoning*, grounded on the apprehension that his son would become the victim of a malady hereditary in his family, thus evincing a certain degree of illusion of the understanding. The verdict of “wilful murder” recorded by the coroner is clearly wrong; but we do not say this with the smallest intention of reflecting on any of the parties concerned in the investigation; as a coroner’s court is at present constituted, it would not perhaps have been easy to arrive at any other conclusion; the surgeon, however, who was quite correct in pronouncing Mr. Stanynought insane, might possibly have influenced the verdict by explaining the nature of *monomania*, and by stating the fact, which cannot be too generally known to all engaged in such inquiries, that there is a *moral*

insanity which is not necessarily attended with irrationality, but which nevertheless renders an individual unfit to remain at large, and also exempts him from moral responsibility, because his apparent crimes are the result of disease, and his actions are not under the control of his understanding. The coroner’s verdict is of little moment in the instance now before us, as far as regards the life of the prisoner, because if a bill should be found against him by the grand jury, he will no doubt be acquitted on his trial; but there are many cases with respect to which it is highly important that they should not come into court, and this is one of them: the agitation of a trial, or even the suspense preceding it, might easily convert a partial and curable, into an irremediable case of insanity, and an individual whom the resources of art might have restored to health, and the consolations of religion to tranquillity at least, if not to happiness of mind, might thus be condemned for life to hopeless gloom and despondency.

To make a coroner’s inquest what it ought to be, several changes are indispensable. The individual holding the office of coroner should be a man profoundly versed in medical jurisprudence; and though we do not at all agree with our contemporary the *Lancet*, that none but medical men should be eligible to such an office, we think that *cæteris paribus*, a member of our own profession is much to be preferred. Again, a coroner’s jury should not be a common one; it should always consist of intelligent and well educated men, instead of the well-meaning, but uninformed persons who now generally compose it; we have occasionally been quite unable to keep our countenance at the sagacious remarks made by jurors on an inquest.

But the efficient constitution of the coroner’s court can be of little avail, unless the competency of medical witnesses be ensured by a full examination on the principles of state medicine, to

which we hope ere long to see every student subjected previously to his admission into the profession. This indeed is an improvement essential to the honour of the profession, as well as to the administration of justice; since, whatever laurels our brethren may have won, a court of law has very seldom been the scene of their triumph.

—o—

DISPENSARIES AND WORKHOUSES—
GRATUITOUS MEDICAL ATTENDANCE.

To the Editor of the London Medical and Surgical Journal.

SIR—I entirely agree with you in the opinion that dispensaries, as conducted at present, are jobs of the grossest description, alike injurious to the public and profession. They are injurious to the public, because they indirectly encourage idleness and vice, and to the profession, because they deprive many of its members of patients well able to obtain medical aid without resorting to any charity, if they only save their earnings from the gin palaces.

Moreover, the new poor law act compels parishes to procure medical aid for their poor; and if this aid were good, which it seldom is, there would be no need for dispensaries. But as the poor law commissioners only employ the cheapest medical practitioner, who is generally poor and needy, the health and lives of the poor are at the disposal of inexperienced individuals. Were the commissioners to employ physicians, surgeons, and apothecaries, as these are now employed at dispensaries in any parish, and reward them for their services, then and only then, the poor would have efficient advice and medicine, dispensaries be rendered unnecessary, and professional rights uninvaded. I am Sir, yours truly,

A GENERAL PRACTITIONER.

—o—

USE OF TURPENTINE IN GONORRHŒA.

To the Editor of the London Medical and Surgical Journal.

SIR—If you deem the following medical fact of sufficient importance, I shall feel obliged by your recording it in your valuable Journal.

In January last, I was consulted by a gentleman who was suffering from a very virulent gonorrhœa, recently contracted, the discharge from the urethra copious, deep-coloured, and fetid, ardor urinæ distressing, and accompanied with severe nocturnal chordee. My usual treatment, copaiba with liq. potassæ, laxatives and sedatives, failed to

afford relief: on the third morning after his application to me, upon the occasion of evacuating the rectum, he found a substance protruding from the anus, which required some effort to disengage, and the force used brought away a portion only of a large-sized tape-worm; I expressed my opinion, that the remaining part, the caudal extremity, was merely lying in the rectum, and would most probably be ejected upon a subsequent evacuation: a careful investigation of the dejected feces could not discover any worm; a troublesome irritation and uneasiness of the anus prevailed, probably more the effect of imagination than reality, which together with the severe gonorrhœal urethritis, was exceedingly distressing to my patient. With a view of dislodging the worm or worms in the intestines, I prescribed half an ounce of spt. terebinth. pur. to be taken horâ somni, which had not the effect anticipated, but a marked and decidedly favourable one upon the urethral disease, for, on the following day the ardor urinæ had nearly subsided, the discharge greatly diminished, and the chordee, which had prevailed so annoyingly for some nights previously, did not recur, in the slightest degree, on the night of the terebinthinate. Impressed with this favourable result, having both objects in view, I advised a repetition of the turpentine on the following night; this night also passed without the slightest chordee, and on the following day the urethral discharge was scarcely perceptible, and merely of a mucous character; no worm passed at this time or since; the irritation continuing in the lower part of the rectum, I pacified my patient by attributing it to the effect of the medicine, which I believe to be the case, and which irritation, no doubt in a modified degree, pervaded the whole course of the alimentary canal, establishing an extensive source of counter-irritation, constituting the *modus operandi* from which the beneficial result derived was to be attributed, analogous to its influence in relieving the peritonitis of puerperal fever, by vicariously inducing increased action and consequent secretion of the vessels of the mucous membrane of the intestinal canal.

This circumstance, purely the result of accident, often the fertile parent of many valuable medical discoveries, has induced me to the adoption of the use of turpentine in many similar cases of gonorrhœa. I have had much difficulty to encounter in its exhibition, from its excessive and permanent nauseousness, and frequent rejection from the stomach; but of this I speak most confidently and unreservedly, when taken and retained, it invariably cured the disease in a period in no instance exceeding eight days, and not followed by the gleet sequelæ so troublesome and almost invariable a remanet of this disease. I tried it in various forms, but the following is best taken, and has proved completely successful:—

R. Olei vel spirit terebinth pur. 3vj;
 Vitellum unius ovi,
 Syrupi papav. albi, 3ss;
 Aquæ destillatæ, 3iv. M. ft.

Mistura—sit dosis uncia, ter quotidie.

I shall be happy to meet, through the same respectable source of communication, a confirmation of the success of this practice from other practitioners. I am, &c.

JOHN LANGLEY.

36, Tottenham St. Fitzroy Square,
 August 24th, 1835.

—o—

MEDICAL BOTANY.

PLATE IV.—ANAGALLIS ARVENSIS.

ANAGALLIS ARVENSIS (common pimpernel). Stem procumbent; leaves three-nerved, ovate, lanceolate; petals dilated at end, crenate with glands. This beautiful little plant, whose sensitive flowers form the peasant's barometer, is frequently called the shepherd's weather-glass, because the corollas never expand in rainy weather, or when the air is moist, but on the contrary, when the atmosphere is dry and the sun shining, they display their scarlet and purple with happy effect, bespangling the earth with their bright eyes in the most agreeable manner, but which is regularly and firmly closed when Phœbus retires to the west.

"The hollow winds begin to blow,
 The clouds look black, the glass is low.
 Closed is the pink-eyed pimpernel.
 'Twill surely rain, I see, with sorrow,
 Our jaunt must be put off to-morrow."

This is one of the wonderful instincts of vegetable nature, for were it otherwise, the damps of the night air would prevent the discharge of the farina from the anthers, and this species of plants would be consequently lost to the link of nature's perfect chain; for although the pimpernel is too lowly to excite the great interest of man, its seed is the food of insects who have their office to perform towards the completion of the general harmony of the globe.

The smaller kind of birds seek this seed with great avidity, and as it is a plant which follows cultivation, it may save a considerable quantity of the seed of the husbandman from the ravages of the feathered tribe.

Like the poppy, the pimpernel is generally found in ploughed grounds, and in gardens, particularly where the air is pure and the soil light or sandy.

The common pimpernel continues to give out a succession of blossoms, from the month of June to the end of September, and is, although a native weed, deserving of a situation on the parterre, its flowers being of a fine yellow scarlet, having a purple circle at the eye, which adds considerably to the beauty of this miniature flower; and

as it is a delicate pretty flower, that we love to see in the small parterre, or on the banks or borders of the larger pleasure garden, we shall observe that it may be increased by cuttings, and when planted in a pot of light earth, and placed in a hot-bed, it will produce flowers in about six weeks.

This little plant, whose numerous branches spread themselves on the ground, being too weak to erect their flower stems, but which catch our attention by the vivid scarlet of the corolla, was formerly in great repute with medical practitioners, although it is now neglected in our practice. It was given in maniacal cases, and even in the hydrophobia, and also as affording relief in cancerous complaints. It appears, however, says Lewis, that it has some claim to the resolvent and detergent virtues ascribed to it by some writers.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Inflammation of the sub-cutaneous Cellular Membrane—Use of the Nitrate of Silver.—From a Clinical Lecture by Professor Elliotson.

I HAVE a case, Gentlemen, to speak to you about which is very interesting; it is that of George Hemmings, who was admitted the 4th of last month, with inflammation of the sub-cutaneous cellular tissue. He is about 40 years of age, of a sallow complexion, and has lived intemperately; he has been occasionally subject to attacks of bilious vomiting during the last two years. It appears from his statement that he caught cold last winter while under the influence of mercury, and that he has not been well since. A fortnight since, he was attacked with rigors, which were followed by heat, pain in the head, and thirst. The left side of his throat became sore, the right side of it was also shortly after affected. He observed in a few days that on the right side of the neck and upper portion of the chest, the skin was red, swollen, and very tender when pressure was made on it. He was bled twice for these symptoms, and leeches and a blister were applied to the left side of the chest, which was slightly indurated, but not redder than natural. These measures did not remove the symptoms, but, on the contrary, they continued to extend, spreading quickly over the shoulders, the inside of the arm, and fore-arm, so that motion was attended with much pain. When pressed on, the redness disappears, but immediately the pressure is removed, it returns. Pressure on the calves of the leg gives him pain, particularly on the left one; several indurated lines can be traced on them. There is pain in the popliteal space, on extending the knee joint, and tenderness of the epigastrium on pressure.

He is troubled with a slight cough, which is attended with expectoration of a frothy mucus. Respiration is sibilant over the whole chest, but more especially on the left side; he experiences pain on taking a deep inspiration. His pulse is 90, and rather full—he has considerable thirst, and his bowels are confined—urine scanty and high-coloured—the tongue covered with a yellow fur, in the middle clear, and moist round the edges—countenance anxious. Such is the report of the symptoms on his admission. I concluded at once that there the subcutaneous cellular tissue was inflamed. I ordered the shoulders, arms, and the right side of the neck, to be washed with a solution of the nitrate of silver, and ten grains of the pill hydrarg. to be taken every six hours. The caustic had the effect of stopping the extension of the inflammation. The tonsils, velum, and the adjacent mucous membrane became inflamed, for which he was ordered an opening draught and a gargle.

On the 7th he was much better, the neck was softer and less tender on pressure—the mercury affected the gums slightly.

Up to the 23d there was nothing remarkable occurred; he had occasionally slight rheumatic pains about the shoulders; for these he was blistered and relieved—a tonic mixture was afterwards ordered, and save a slight tenderness and hardness in the calves of the legs, with occasional rheumatic pains in the palm of the left hand, and ball of the thumb, he did well; and on the 19th was reported cured.

This case is interesting from the plan of treatment adopted; you may probably remember, that in one case, similar to the present, which we had a short time since in this hospital, that the nitrate of silver was applied, but it had not the effect of stopping the progress of the disease: the man died. On examination after death, the cellular tissue was found in a pulpy, pappy state; but not more so under the parts where the caustic had been applied, therefore that could not be said to have increased the disease. Besides, the gentleman who applied the remedy had done it improperly and partially, rubbing the skin with the caustic in the stick, not, as it should be, in solution. In the present instance, when properly applied, the effect has been decided and successful. The profession are indebted to Mr. Higginbottom for their acquaintance with the use of this medicine externally. It is unquestionably one of the greatest improvements in the modern history of medicine. Before the use of this medicine was known in erysipelas, cases of attacks of that disease in the head used to distress and annoy me. No matter what means were employed, bleeding, mercury, and cold, seemed equally uncertain in their operations; but, since the introduction of this medicine, I do not dread these cases as I used. I have

applied it very many times with the most decided success, and I can confidently recommend its employment. The case just related is a most decided proof of its utility. The man was of weak constitution, and bleeding could not have been resorted to: here was a fearful inflammation going on, and, but for this medicine, would probably have terminated fatally. I have used the nitrate of silver in other cases attended with discharges from the rectum, the urethra, and vagina, as an injection, in one-tenth of a grain in gonorrhœa, and one-fourth in leucorrhœa. It has also, certainly, great power taken internally in various nervous diseases, particularly hysteria and epilepsy.

—o—

MEDICAL BENEVOLENT INSTITUTION AT LIVERPOOL.

We have much pleasure in directing the attention of our readers to an account of the establishment of a Medical Benevolent Institution at Liverpool. The advantages of such establishments are extremely great to our brethren. Thus we have known an instance in the Benevolent Institution of Essex, in which a member paid one annual subscription of two guineas, for which his wife and family have now received 500*l*. We would strongly recommend our junior brethren to join the London Medical Benevolent Institution, from which they may derive great advantages. Each widow is allowed 35*l*. a year, and each child 12*l*., until the age of fourteen years, when it is apprenticed. We wish that similar institutions were in every city in the empire. The annual subscription is two guineas.

To the Members of the Medical Profession.

In directing your attention to the formation of the Provincial Medical Benevolent Society, the committee beg leave to offer a few remarks respecting its origin and objects.

The important rank in the medical world which the Provincial Medical and Surgical Association has now attained—the great number of members of which it consists—the benefits which have resulted from its anniversary meetings, not only in the advancement of science, but in the renewal of social intercourse, and the more general diffusion of friendship and kindness through all ranks of the profession in the provinces, and the facilities for considering and accomplishing any important and general object, which are afforded by the annual re-union of so many professional men, from all parts of the kingdom, have induced some members of the Association to conceive, that by its instrumentality the formation of a benevolent society, which might eventually comprise amongst its members the great majority of provincial practitioners, might

be the most readily and effectually accomplished. The outline of a plan having this object in view was submitted to the Association, by Dr. Baron, at the meeting held at Bristol, in 1833.

At the second meeting, held at Birmingham, in 1834, a committee was appointed to consider the practicability of carrying the design into effect, consisting of the following members:—Dr. Jeffreys, Liverpool; Mr. Wickenden, Birmingham; Mr. Wilson, Manchester; Dr. Baron, Cheltenham; Mr. Ransome, Manchester; Dr. Evans, Birmingham; Dr. Booth, Birmingham; Mr. Williams, Holywell. To whom were afterwards added—Dr. Jas. S. Bardsley, Manchester; Dr. Brandreth, Liverpool; Dr. Scott, Liverpool.

At the third anniversary, held in the Radcliffe Library, in Oxford, in July last, a very satisfactory report was presented to the Association, strongly recommending its adoption, and describing its objects and the principles upon which they proposed that it should be conducted. This recommendation was very favourably received, and unanimously adopted by the Association, and it was resolved—

“That the original committee be re-appointed, with unlimited power to form sub-committees in the several towns, so as to enable them to carry into effect their recommendation; and that they be requested to report their proceedings to the next anniversary meeting.

“That the following towns be nominated as fit places for the formation of committees, viz:—Cheltenham, Liverpool, Manchester, Birmingham, Oxford, Bristol, Bath, Reading, Worcester, Hereford, Warwick, Chichester, and Monmouth, and that Cheltenham be fixed upon as the town where the central committee shall be formed.

“That subscriptions be forthwith entered into, and that Dr. Wm. Conolly, of Cheltenham, be appointed treasurer *pro tempore*.”

The following gentlemen have been appointed a committee for Liverpool: Dr. Jeffreys, Dr. Brandreth, Dr. Scott, Mr. Bickersteth, and Mr. Dawson.

The committee, therefore, earnestly trust, that it will receive the cordial support of the profession at large, and that each individual member will endeavour to promote its success in his immediate sphere; and it is hoped, that many benevolent individuals, unconnected with the medical profession, but grateful for the blessings which they have derived from the exercise of medical skill, as well as from motives of general philanthropy, will materially assist in its advancement, so that in no long time it will be sufficiently matured, not only to accomplish the primary object of its establishment, but to afford, in many instances, permanent assistance, to rescue from poverty, in all cases,

the aged and infirm—to diffuse peace and comfort through their declining years, and illuminate, with fraternal sympathy, their dark and cheerless passage to the grave.

The following contributions have been received, and the Liverpool committee will be happy to receive donations and subscriptions, and the names of those who may be willing to become contributors.

Donations.—Dr. Kidd, Oxford, 20*l.*; Dr. Currick, Bristol, 20*l.*; Dr. John Johnstone, Birmingham, 20*l.*; Dr. Baron, Cheltenham, 20*l.*; Dr. Hastings, Worcester, 2*l.* 2*s.*; Mr. Seager, Cheltenham, 2*l.* 2*s.*; Dr. W. Conolly, ditto, 2*l.* 2*s.*; Dr. Barlow, Bath, 2*l.* 2*s.*; Dr. Jeffreys, Liverpool, 2*l.* 2*s.*; Mr. Griffith, Hereford, 2*l.* 2*s.*; Mr. T. Griffith, Wrexham, 2*l.* 2*s.*; Mr. Hitchings, Oxford, 2*l.* 2*s.*; Dr. Scott, Liverpool, 2*l.* 2*s.*; Dr. Bleck Lye, Hereford, 2*l.* 2*s.*; Mr. Paxton, 1*l.* 1*s.*; Mr. W. Davis, 1*l.* 1*s.*; Mr. Brooks, 1*l.* 1*s.*

INSURANCE OFFICE QUERIES.

To the Editor of the London Medical and Surgical Journal.

SIR—You deserve well of your profession and the community at large, for your clear and ardent elucidations of the mean, dishonest, and degrading dispensary system. There is another department to which I have to call your attention, by which medical men suffer, and that is the insurance office department, who transmit their queries to professional men, and, to answer which conscientiously, requires time, skill, and attention; but no fee, or assurance of such, attends these applications (inducing the belief that there is no want of modest assurance at these offices), which invariably ought to be the case. When an individual presents himself for insurance, the office to which he applies should call on him to deposit two guineas, to accompany the said queries, which would give the application a decided claim to attention. I am, &c.

HONESTUS.

Sept. 3rd, 1835.

LITERARY NOTICE.

In the press and shortly will be published, an Interlinear Translation of the Second Book of Celsus, with the Order and Numbers of most of the Words attached. By Gurney Turner, Esq.

—o— CORRESPONDENTS.

Inquirer is right. The various articles on dreams and sleep, which have lately appeared in this Journal, are from an unpublished Lecture on “The Philosophy of Dreams and Spectral Illusions,” delivered by Mr. J. F. Clarke, at the City of London Literary Institution.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 190.

SATURDAY, SEPTEMBER 19, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXIX.

Hypotheses concerning the Proximate Cause of Muscular Motion.

I.—The first opinion, that the change in the figure of a muscle, during its contraction, is effected by an influx into the vesicles of which its ultimate fibres were supposed to consist, of nervous energy, which was believed to be capable of swelling them in one direction, while it shortens them in another, is the most ancient one upon the subject, and it has been adopted by some physiologists of our own times (*a*). The latter have attempted to support it, not only by trying to demonstrate the really vesicular structure of the ultimate fibres of the muscles, and by laborious calculations of the necessary effects of their inflation, but by the observation, that the contractions of a muscle always take place in a vibratory manner; (*b*) and this they say may be presumed to correspond with the intermitting jets into them of the nervous energy, which is by many of the modern advocates of this doctrine identified with galvanism. They omit, however, all the anatomical and mathematical part of the question, the former of which is pretty certainly erroneous, and the latter equally certainly inapplicable; the circumstance of the vibratory character of vascular contraction may surely be, with as much likelihood, ascribed to numerous other necessary conditions of this contraction, as to successive jets into the muscles of a supposed substance of the existence of which there is neither proof nor probability. The only stimuli to muscular contractions, which are conducted by nerves, appear to be sympathy and passion, or instinct, on the one hand, and volition on the other, and that these are not, any more than any other such stimuli, material, has been already abundantly insisted upon. They may stimulate the muscles to undergo the change in question, but they do not immediately effect that change by pouring any thing into them. Besides, how are we to conceive that heat, and the numerous other direct stimuli to irritability, operate in exciting muscular contraction, if it be by the influx into the muscles of nervous energy that it is effected; and how is it to be explained upon this principle, that muscles continue to contract, upon the application to them of these direct stimuli, during sleep or coma, and even after apparent death, as well as after all their principal nerves have been tied, after the brain has been removed, or after the muscle itself has been separated from the body, when, of course, every avenue by which a supply of the supposed nervous energy can be presumed to be furnished must have been cut off?

II.—The second influx which has been brought forward in explanation of the proximate cause of the contraction of muscles, is that of blood, which is presumed to pucker up the alternate muscular filaments by the turgescence, which it occasions in the contiguous blood-vessels (*c*). The principal arguments in favour of this hypothesis are, in addition

(*a*) This was the surmise of Galen; and it has been supported by Descartes, F. Sylvius, Borelli, Hoffmann, Stuart, and others, in modern times, as well as by many of those physiologists in our own day, who choose to identify this imaginary substantial nervous energy with galvanism.

(*b*) Roget (*De perpetua Fib. Musc. palpitazione*, 1760); Wollaston (*Phil. Trans.* 1810); Laennec (*De l'Auscultation Médiate*, 1819), &c.

(*c*) This hypothesis has been maintained principally by Swammerdam, Baglivi, Cowper, Fowler, Ward, and Prochaska.

to the established fact, the force of the contractions of muscles in all animals, at all ages, and under every variety of circumstances, is in the direct ratio of their vascularity; in the first place, that the force of such contractions, on the application of any stimulus, is found to be more increased by increasing the quantity of the blood sent in a given time to the muscles, so that these supposed jets become more powerful (a); secondly, that the celerity of these contractions is diminished by diminishing the rapidity of the circulation through the muscles, as is supposed to be proved by the peculiar arrangement of the arteries going to the extremities of the tardigrade animals, as the sloths and lorics, which is such, it is believed, as must retard the flow of the blood, and may thus, by diminishing the rapidity of the jets into the muscles, explain the sluggishness of their motions (b); and thirdly, that these contractions are altogether prevented, after a time, by tying the arteries going to a limb, while obstructing the larger nerves is, as has been already explained, comparatively nugatory in this way (c)—a circumstance which can be accounted for, it is imagined, only on the presumption that the former operation obviates, while the latter does not, the jets of blood into the muscles in which the proximate cause of muscular motion is conceived to consist. Against all the arguments, however, supposing the facts to be as is stated, it might perhaps be sufficient to say that the blood being one of the most powerful stimuli to the contractility of muscles, it might easily be supposed that an increase, a diminution, or an exclusion of this fluid, would produce a corresponding effect on their contractions, without the inference that it was upon any direct influx of blood into the muscles that these contractions immediately depended. But against the second and third of these arguments it may be alleged further, that the one rests on the presumption of facts which have never been made out, and that the other admits of an explanation even more satisfactory than that founded upon an exclusion of a natural stimulus. For, with respect to the former, it remains to be proved, first, that the peculiar distribution of the large arteries of the limbs of tardigrade animals is such as to retard the circulation of the blood through them; secondly, that the motions of these animals are really, under equally favourable circumstances, slower than those of others; and thirdly, that, if both these facts are as alleged, the one is the cause of the other. The peculiarity alluded to consists in this, that the humeral and iliac arteries of some of the bradypoda are found, like the internal carotid arteries of some browsing animals, to be very much subdivided in their course; and these subdivisions will unquestionably, by increasing the collective calibre of the passage for the blood, retard its course in *this particular part*; but if these arteries are afterwards re-united before they are distributed into the branches which supply the muscles, it is manifest that the original celerity will be restored. Again, although the sloth and other reputedly tardigrade animals, when crawling along a flat surface, in which case their long claws are an incumbrance to them, and every feature of their structure is ill adapted to a rapid progress, move sluggishly, and with difficulty, is such their motion when hanging by their claws from the lower part of the branches of trees agitated by a storm, and under circumstances in which many animals, the fleetness of which on even ground is so superior, could not move at all? Further, it seems to be absurd to connect the idea of essential celerity or tardiness of muscular contractions with any distribution of the arteries; as if the motions of the same animal were not quick or slow, according to many circumstances, while the distribution of its arteries remains unchanged; and as if the course of these arteries were not often materially altered, without entailing upon an animal any general peculiarity in these respects—without converting, as it has been idly attempted to do by these means, the sloth into the spaniel, or the spaniel into the sloth (d).

(a) This fact was observed by Fowler, while engaged in exciting the contractions of the muscles of a frog by electricity. (*On Animal Electricity*, 1798).

(b) Sir Anthony Carlisle (*Croonian Lectures*, 1800-1805).

(c) Stenon, Cowper, Boerhaave, Brunn, Brodie, &c.

(d) It is astonishing that persons who are aware that one artery after another, as well in the human body as in that of brutes, has been tied, and every possible variation in the character of these vessels as ministering to the several organs, has been thus produced, without any, or with very inconsiderable effects on the functions of these organs, can still continue to vapour about the subdivisions, angles, degrees of tortuosity, and so forth, of particular arteries, as influencing

in any remarkable degree the functions of the parts which they respectively supply. The doctrine is not yet quite obsolete that, as the apparent inactivity of the sloth depends upon the subdivisions of the main arteries of its limbs, so the usually greater energy of the motions of the right arm of man, than of the left, arises from the greater concentration of the artery by which it is primarily supplied, without regard to the fact that the right leg and whole right side of the body are in general in the same degree more energetic than the left, as the right arm. There are many, too, who still cling to the belief that an artery which, like the renal, arises from the aorta at a right angle, or one which, like the internal carotid, proceeds in a tortuous manner to the place of its destination, receives less blood or conveys

Every thing relating to this argument, therefore, appears to be objectionable; and, with respect to the last on the same side, that tying the arteries of a limb after some time quite destroys the contractility of its muscles, this may be easily explained, as elsewhere stated, without the presumption that it is in any direct influx of blood that the proximate cause of muscular contraction consists. For, not to recur to the want of the proper supply to the muscles, in this case, of one of their most essential stimuli, we must remember that it is by the blood that the nutrition of the limb is maintained, that its ganglionic nervous tissue ceases in this case to be renewed, in proportion as it is exhausted, and that there is consequently after a time a cessation of irritability—a necessary condition of muscular contraction. No thing of this kind takes place when only the larger nerves of a limb are divided, which sufficiently explains why the retention of muscular contractility in the part is quite compatible with this operation (a). — And that is by impeding nutrition, and not by obviating any presumed jets of blood, as immediately instrumental to the contraction of muscles that this tying of the arteries operates, is rendered further probable by the fact that if the veins, as well as the arteries, are included in the ligature, the contractility of the part is preserved for a longer period than if the arteries alone are tied (b). In this case it is very easily understood, that from the blood being retained in the capillary tissue—the immediate instrument of nutrition—much longer than in the other, this process will continue for a longer time uninterrupted; but it is much less conceivable how any retention of blood in this tissue should be favourable to muscular contraction in the manner above supposed. It may be remarked further, that the retention of their irritability by the several organs after apparent death, is found to be, *ceteris paribus*, proportioned to the quantity of blood which they contain—a fact which is more easily reconcilable with the presumption that this blood still ministers in some degree to nutrition, than that it effects—now that the larger arteries are all for the most part empty—any such jets as have been imagined. But, besides these objections tending to neutralize the several arguments in favour of the hypothesis in question, it may be alleged as positive evidence against it, that, supposing the blood to reach the muscle in action from the contiguous parts, it is quite inapplicable, like the doctrine of an influx of nervous energy, to explain the contractions of a muscle, on the application to it of the requisite stimulus, after its removal from the body, when every such supply of blood has been intercepted; and that it is quite inconsistent with the fact that the bulk of muscles, during their contractions, appears to be unenlarged; and whether this be the presumption, or whether it be supposed that the blood merely shifts from one part of the muscle to another, it is quite irreconcilable with any of the generally acknowledged powers of the circulation. It may be urged, indeed, that, conceding the independent action of the arteries, large and small, we have a power quite competent to produce the jets in question, whencesoever the blood may come; but allowing the greatest possible degree of latitude to this presumed independent action of the arteries—an action, which in the case of the larger arteries, is pretty certainly altogether imaginary—we must still, if this hypothesis be admitted, come to a point where general authority seems to desert us. For it must not be forgotten, that the independent action of the larger arteries, if any such exist, as well as that of the parenchymatous tissue, itself consists in muscular contraction, and whence can their coats be presumed to get the necessary jets of blood? If we say, in the former case, by their *vararum*, we still imply the muscular contraction of the latter; so that we are driven at last to the presumption that the blood, in the process of effecting muscular contraction, moves spontaneously—a presumption, certainly, quite inconsistent with the best established doctrines on the subject.

III.—But if the muscular fibre acquire nothing new during its contraction, in the way either of nervous energy or of blood, by what changes, chemical or mechanical, in its substance, is this contraction effected? It is hardly necessary to shew that it is not, as was at

it with less impulse than it would have done under different circumstances. It is quite time that all this trash, irreconcilable as it is with reason, and inconsistent as it is with recently established facts, should be abandoned.

(a) Dr. Elliotson attributes the “palsy,” which results from this operation, principally to the want of nourishment of the motiferous nerves, so that they can no longer act as vehicles of the accustomed stimulus. (Trans. of Blumenbach, Instit. of Physiol. 1820). But it is not merely “palsy”—which consists only in a defective

conveyance of such indirect stimulus—but a total want of capability on the part of the muscle to obey any stimulus whatever, indirect or direct, which is the consequence of the operation in question—not a loss of the power to excite, but of the faculty of being excited. If its effects were on the motiferous, and not on the ganglionic nerves, how could it happen that dividing the former does not produce it? It does produce palsy, but that is a very different affair.

(b) W. F. Edwards (*De l'Influence des agents Physiques*, &c. 1824), Dr. J. P. Kay (Edinb. Med. and Surg. Journ. 1828).

one time supposed (*a*), by the expansion of the air which the muscle contained, like that which occurs in a shrunk bladder upon the exhaustion of the circumambient atmosphere, that this takes place; and the doctrine that it depends upon a kind of effervescence or explosion, arising, as some have imagined; (*b*), from the combination of certain inflammable gases or other matters contained in the muscles with the oxygen or other matters constantly brought to them with the blood, which combination is effected by the nervous energy—afterwards identified with galvanism—conveyed to them at the requisite periods by the nerves, cannot surely require any serious refutation. It may be allowed, like the two former, to sink quietly into the vault of all the Capulets, in company with all the rest of that chemical mummery which was at one time unfortunately so fashionable in physiology.

IV.—Nor is the hypothesis that muscular contraction depends upon the coagulation of the supposed fibrin of the muscle, dependent upon some change in the proportion of its elements (*c*), at all more happy, or more worthy of a lengthened examination. It has been already weighed in the balance incidentally, and found wanting. Such coagulation of their fibrin is pretty certainly the cause of the rigidity of the muscles after death; but how different a process this is from their contraction during life, is clear from the fact that the former does not take place while irritability is still energetic—in other words, immediately after death—but only when this is already exhausted—in other words, from two to eighteen hours afterwards—and from its occurring as remarkably—perhaps even more remarkably, like all dead processes—in weak subjects than in strong ones. If this hypothesis respecting the proximate cause of the contraction of muscles were true, it would cease to be a question whether the stiffness of the joints after death depended, in any given case, on the ordinary post mortem rigidity, or on spasmodic contraction—a question sometimes of very great interest—since it is obvious that no distinction would exist between them. But the circumstances of the two are in every respect different, and their proximate causes must therefore be presumed to be so too. Living muscles contain, in all probability, no fibrin; and it is fortunate for us that they do not, since if they did, it must—for it would not otherwise be fibrin—coagulate, and such coagulation, so far from effecting, would be incompatible with muscular contraction.

V.—There remain only the doctrines of some mechanical changes in the muscles to explain their contraction; and, according to some physiologists, it consists merely in an increased degree of that attraction by which the particles of matter of every kind are kept in contact (*d*). This explanation, however, unless it be so far modified as to allow that the increased attraction takes place in one direction only, and that in proportion as it is diminished in another, is quite inconsistent with the fact that the volume of a muscle is not altered during its contraction. But such a modification has been attempted, and the whole thing has been referred to the globules, of which the ultimate fibres of muscles are supposed to consist, which are presumed to become changed, by some peculiarity in this attraction of cohesion, either in their figure, or in their relations to each other in this process. It has been imagined, that whereas while the muscles are in a state of rest, or contracted only to a degree which we consider as their rest, these globules are rather elongated in the direction of the fibres of the muscle than spherical, and the amorphous matter between them is copious, so when they are in action the former are brought each to the figure not only of a sphere, but even of a compressed spheroid, and the previously interposed amorphous matter is squeezed out from between them (*e*). The principal objection to this doctrine, to say nothing of its offering no explanation of this peculiarity in the operation of the ordinary cohesive attraction, is that it is a mere hypothesis, without any substantial evidence in its favour. It is perhaps adequate to explain the phenomena in question, but it is time enough to inquire, according to the admirable rule of Newton, already spoken of, whether any doctrine "*phænomenis explicandis sufficiat*," when we have adduced some reasons for believing that "*vera est*;" and that this doctrine cannot possibly be so, if the objections to the globular structure of the muscles already alluded to be substantiated, is obvious.

(*a*) Boyle, Keill.

(*b*) Willis, Mayow, Bellingeri, Girtanner, Richerand, &c.

(*c*) Humboldt, Cuvier, Rudolphi, &c.

(*d*) Haller, Cullen, Fordyce, &c.

(*e*) Sir Everard Home.

SELECT LECTURES,

FROM

M. BROUSSAIS'

Course of General Pathology and Therapeutics;
translated and revised

By JAMES MANBY GULLY, M.D.

LECTURE XIV.

Croup.

THIS disease made a great noise in France, from the concours on the subject ordered by Napoleon whilst he was yet on the throne. At that time his child was of an age when croup was to be feared, and he wished to stimulate the zeal of the profession by a prize. The conclusion from the first researches thus induced was, that the croup was an inflammation—an important point ascertained: that the false membrane was owing to this inflammation: that the danger depended on the concreted mucosities which gradually narrowed the glottis: yet that cases occurred in which patients died asphyxiated without any appearance of false membranes. They were not satisfied with the injection, swelling, and concretions, as explanatory of the suffocation; spasm was considered as the determining cause, although it is only the consequence of the inflammation; in fact, when the larynx is inflamed and its mucous membrane swelled, it is impossible that there should not be a violent constriction of its muscles, which together with the inflammation contributes to the narrowing. This question is not one for the larynx alone, but for many other organs, so simple and so evident is the answer to it; the velum palati, the cardiac, and pyloric orifices, and body of the stomach, the urinary bladder, &c., are all liable to become spasmodic when they are inflamed, and still more likely is the larynx to be so when in a state of phlegmasia. This spasm is stronger or weaker according to the nervous habit of the patient; this fact should be noted, but is no ground for making out a nervous croup, just as they have made an inflammatory croup from inflammation, or a mucous one from the mucous secretion—distinctions that scent of the old things of the four temperaments: why did they not make a melancholic croup?

These ideas prevailed, and practitioners represented the inflammation as primitive in the larynx, with divers forms and determinate limits, when M. Bretonneau's work appeared, a valuable work in so far as the author relates what he has seen, and as he often avows things that do not speak in favour of his own views, adding thus the merit of candour to it. But he has neglected several important points and given imperfect explanations. He does not consider croup to be a primary and isolated disease, but makes it dependant on a general modification of the upper mucous membranes, called diphtheritis, never commencing in the larynx, and of which croup is a section, or, if you choose, a consequence. To the support

of this opinion he brings facts on the interpretation of which medical men vary. It has been objected that what he looks upon as the preludes of croup is only the beginning of a gastro-enteritis, and that in such case his remedies are uncertain; that when they succeed it is because the disease has commenced without preludes in the velum palati; that when they do not succeed it is because he has neglected to combat the visceral inflammation that preceded that of the larynx.

The question therefore is, whether a primary croup does exist; and to this we are bound to answer in the affirmative, for it is shewn to be so by the modern treatises of Bretonneau, Bland, Emangard, and others. The essay of the latter author more particularly is filled with numerous facts that certify a primary croup in the larynx, and cures obtained by crushing the inflammation in its onset. The same was proved in the majority of the works published for the Napoleon prize. This does not however prevent the possibility of the mucous and membraniform secretion of the larynx forming part of a general tendency to that secretion throughout the extent of the upper mucous membrane, and of its appearing in the organ of voice after occupying other organs. Both primary and consecutive croup may be found; I repeat this in precise terms, lest it should be wilfully perverted and an opinion attributed to me, as is frequently done, which is none of mine: *for my adversaries are most skilful in refuting what I never said, and even what I myself have refuted!* I do not then maintain that no such thing as M. Bretonneau's diphtheritis exists, but I do maintain that there are primary croups. Had that author his eyes blinded on the matter of croup? not he: only when he arrested it he said it was only a cold; thus it is that our adversaries reason. You shew them an incipient phlegmasia of the larynx, and you crush it—they tell you you have only cured a simple cold. The same objection in the case of gastro-enteritis: suppose you have twenty of them under treatment and you arrest eighteen—the two that persist are the only *essential fevers* among them, say our adversaries. Both objections are equally false: every disease that is not arrested might have gone on and become serious or even mortal; be convinced of this truth and you will be physiological physicians.

Take example from M. Emangard in the examination of croup. When he went to practise at L'Aigle, the opinion held there from time immemorial was, that every one attacked with croup must necessarily fall a victim to it. He boldly and promptly combated it, with antiphlogistics first, and then with emetics, made a revolution in opinion in the town, and now the converse is the popular bye-word. This fact is sufficiently important to merit attention, if not from a feeling of justice, at least from that of personal interest; but justice does guide you

and tells you that every man has an equal right to revolve, weigh, and judge, with all possible sincerity, the assertions that are made; and it does not content an intelligent audience, as you are, to hear people saying that this author or professor is enchained by one idea, because he has the courage to think differently from others. You should demand proofs and demonstrations, and therefore it is that you cannot fail to yield serious attention to M. Emangard's authentic and irrefutable fact: remember this is a question of conscience as much as reason. Being on the jury last year, I gave up twenty-four and thirty-six successive hours to a small police affair, that was certainly nothing in comparison with croup, which is a capital question, serious as capital punishment itself—indeed more so, since it perils the lives of innocent beings; and one which you are often called upon alone to decide upon. Again I say that croup may be primary or consecutive in the larynx, confined to that organ or extending to others, but most frequently consecutive; when they have made me say otherwise, sophistry has been employed, and my words have been perverted. Trace we now the history of this formidable disease.

Cold is the most powerful cause of croup; you may tell me that marshy emanations assist in its production: I think that most frequently they have nothing to do with primary croup, but that united to moist cold, they influence the production of croup complicated with extensive phlegmasiæ of the mucous membranes, such as diphtheritis. Cold acts more powerfully when quickly following on heat; an easterly wind is a very fertile cause of it in young, lymphatic subjects, who are, generally speaking, more subject to it, though the robust are by no means exempt. It most commonly occurs previous to puberty, when the constitution is more lymphatic, the larynx narrower, and the entrance and exit of air less easy. Its onset is made in several forms; one slow, commencing with a simple cold, hoarseness, slight cough, mucous expectoration, during several days, after which the child exhibits the characteristic symptoms of croup; the other sudden, in which the child is all at once seized with the characteristic croupy symptoms, which are a cough called croupy, or asnerine by some others, from its resembling the scream of an enraged goose; a cough that is stridulous, as if it passed through a brazen tube, and accompanied with a râle during inspiration, that is painful to hear, and which when once heard can never be forgotten. As the disease proceeds the patient becomes anxious, from the difficult respiration; he stretches his neck, stiffens it, throws his head backward, and by an instinctive movement applies his hand to the larynx, as if to facilitate the introduction of air: it is the same kind of instinct that leads animals to lick the part that pains them. The noise of mucosities moved about by the cough

is heard, and we may even sometimes feel with the hand, and still better with the stethoscope, the movement upwards and downwards of the false membranes. If any uncertainty remains it soon disappears before the anxiety and terror that are depicted in the attitudes of the patient, his swollen face and livid complexion; further light is thrown on the point, if portions of false membrane are expectorated by the cough.

Regarding the secondary phenomena, first come those of propagation of the irritation, which may reach the bronchi (and with the stethoscope the râle may be heard), and may also extend to the pharynx and the velum palati, producing false membranes there. These phenomena of propagation are possible but not constant. Those of dissemination are first, fever, which is not slow and gentle at the commencement, and does not appear until the disturbance has extended into the system, and then is difficult respiration. The frequency and force of the pulse, as well as the spasm and agitation, depend on the individual temperament and susceptibility. Were I to trace a picture of these phenomena to you, it should be taken from two or three nearly similar individuals, and would probably only resemble others by chance, so that you might not perhaps meet a single other croup that resembled it. Nothing is more insidious than those picturesque descriptions of a disease, that are made by inspiration as poetical pieces are, and which might be given in verse as well as prose; they no more represent the object the authors have in view than does a general likeness of the human species resemble the face of one individual. You should fix upon the principal phenomena alone, around which the others are grouped. To give you an idea of this, I would say that if the head becomes affected, then is redness of the countenance, agitation, delirium: if the irritation takes possession of the stomach, then is heat and epigastric sensibility, nausea, red, dry, fuliginous tongue, &c.; if it extends to the lungs the respiration is perturbed, laborious, anxious, with painful convulsive cough, expression of terror, &c. But all this assemblage has no length of time for production: as soon as the false membrane forms the patient is already nearly strangled: these phenomena do not last more than a moment, and death rapidly follows them: the principal attention should therefore be given to the respiratory tube when there is supersecrection.

In our time the progress of croup is rarely allowed without some attempt to interrupt it; in times past it was permitted to go on, and the patients almost invariably were suffocated in a state of prostration, with engorgements of the head, chest, and abdomen, with extensive inflammations and more or less putrescency. Even now-a-days cases are met with where the disease is not combatted, and the cure is left to nature, who effects it by virtue

of a law which it is well to ascertain in order to give her credit for it, and not exaggerate the potency of our means. According to this law, whenever a concretion takes place in the course of a mucous phlegmasia, there is a tendency to an exudation beneath it which detaches it. If this concretion is in the nose, we blow it; if in the throat or larynx we spit or expectorate. It is possible that when croup occurs in strong, well constituted adults with a large glottis, the cough may cause the expectoration of two or more cylindrical false membranes, and the patient get round: whilst children, whose larynx is narrower, suffocate before the loosening and expectoration can be effected. When patients thus expectorate false membranes, they are relieved, the fever diminishes, the respiration becomes free, they even sometimes ask for food, if there be no cerebral congestion or visceral inflammation: but on the following day new membranes may form and the mischief be renewed, which shews that there is no certainty in the progress and issue of a croup that is not treated. Every thing is subordinate to individual constitution and divers involuntary and unforeseen circumstances; sometimes the false membranes are produced in the space of five or six hours, and threaten suffocation, then are driven off by efforts of coughing, form again, are again expelled, and the patients die not. This scarcely happens in children, on account of the narrowness of the air passages: there are however instances of it. I have seen chronic croup in adults, who expectorated false membranes at distances of two or three months.

In summing up what refers to this part of the history of croup, we observe: 1. Death by general dissemination of the inflammation, simultaneous cerebral and pulmonary congestion, suffocation, particularly if the patients have been stimulated. 2. Death by simple suffocation, without congestion of head or chest. 3. Prolongation and sometimes cure of the disease by expectoration of false membranes. 4. Diminution of fever and irritative symptoms after such expectoration, return of fever and of those symptoms when the membranes are reproduced. 5. Possibility of prolongation to the chronic state in adults, infrequency of this prolongation in children.

When we are enabled to inspect the bodies of either after death, we behold multiplied forms of false membranes, hard, dense, coriaceous, half loosened, floating, or adherent, formed of several superimposed layers, the external dried by the heat and air of respiration, and the others less and less coherent, as we approach the surface whence they were secreted, some denser, some more diffuent. When they have thus deeply inlaid the respiratory surface, the suffocation has been sudden, almost electric. During the last seventeen years, I have met three or four cases of such

sudden death in adults. In the autopsy we drew from the mouth, larynx and bronchi, concretions that exactly resembled a polypous tree, whose branches were certainly hollow but left no room for the entrance of air into the lungs. Moreover, no air could be of use in oxygenating the blood when such concretions intervened between it and the sanguineous capillaries. The inflammation subjacent to the false membranes is not always readily traceable in children: more generally there is a slight redness, rather than a deep colouring, of the mucous membrane: this depends on the quantity of blood that has been lost, or the rapidity of the death, or the more or less inflammatory or catarrhal shade of the disease, &c. If it has existed in the shape of catarrh, and the child has been freely bled, there may be scarcely any redness; take care, however, how you thence conclude, as did some of the candidates for Napoleon's prize, that the disease is not inflammatory.

The secondary cadaveric phenomena are cerebral or pulmonary congestion, or even decided inflammation of the brain or lungs, especially in those that have not been bled, but rarely any appearance of pleurisy or gastritis.

To establish the prognosis you must rest on two symptoms, the cerebral or pulmonary congestion, and the imminence of suffocation. A child or adult suddenly seized with laryngitis may have so violent a pulmonary congestion or sudden cerebral apoplexy, as to perish before the stoppage of the air passage has taken place; this is rare, but not impossible. Most frequently the danger arises from suffocation, and the prognosis is to be drawn from the difficulty of respiration; when the face is injected and turns purple, with streaming eyes, stretched and swollen throat, the gestures evidencing an ungratified desire for air, when the upper muscles of the chest, that are fixed to the clavicle and sternum are forced to assist the ordinary respiratory muscles, and the respiration is what is called sublime, the danger is great, but becomes immediate when the pulse is small, thready, extinct, and asphyxia commences: death is then for the most part inevitable. Though false membranes have been rejected, we are not hastily to conclude that the disease is over, for they may be reproduced. Cases even occur in which the croup is intermittent, as all other irritations may be, so difficult is it to isolate from any given disease phenomena that are owing to some other.

Lastly, in an advanced stage, when the patient is no longer threatened with suffocation, secondary phlegmasiæ come on. The inflammation of the larynx having ceased, and the cough being no longer any thing more than catarrhal, he may be threatened with death either by gastritis, or pneumonia, or pleuritis; the danger, of course, will be pro-

portioned to the intensity and duration of these inflammations.

The treatment should, first of all, be antiphlogistic; such was the general opinion when M. Bretonneau began to preach the harmfulness of such a method, and to cry up topical means, such as alum, lunar caustic, and hydrochloric acid. But the conviction of this our worthy confrere only rests on an imperfect notion of the disease, and on the supposition that it always commences in the tonsils and velum palati. His principal indication is the employment of topical means to put a stop to the inflammation in those parts, and to prevent its propagation into the larynx, bearing in mind those numerous cases in which it commences in the latter organ, and where these means are not applicable. I am far from rejecting them, or denying their advantages when the disease really takes its start from parts that are accessible by those remedies; but as other observers, not less worthy of credit than M. Bretonneau, and among whom I venture to place myself, maintain that they have, by early local bleedings, undermined the inflammation that generates these false membranes, wherever it might be placed, I am of opinion that such bleedings ought to form the main curative means. General bleeding may also be useful to full-blooded adults, whose respiration and circulation are impeded, and who are subject to congestions in the great viscera. Except in this case, which also requires the after application of leeches, these are the surest remedy when used immediately and boldly on the larynx; they make the inflammatory movement sink, and in 24 or 36 hours the difficulty of respiration has disappeared, and the cough become simply catarrhal. For the rest, chemistry and physiology tell us that the concretion of the mucous, and the formation of false membranes, are owing to the excess of the inflammation and the heat it develops in the parts, conjointly with the respiration; diminish this heat, and its main cause, the inflammation, and the coagulation of the mucus immediately ceases. Together with leeches, you must be active with emollient applications, demulcent fluids, strict diet, revulsives, as blisters, pediluvia, and sinapisms. Should false membranes form, notwithstanding these means, or because they have been applied at too late a period, as they do not possess the power of doing away with them, you must endeavour to imitate nature by producing a mucous fluid beneath them, and then expelling them by coughing efforts, or by vomiting. Emollient vapours should be inspired, which render the false membranes more readily detached, while they at the same time diminish the heat of the throat and lungs, and provoke emesis; for it is her own mechanism that nature most frequently employs in expelling the mucous products of the croup and whooping-cough. It is true the tartar emetic you employ may pro-

duce a smart irritation of the stomach, and even a gastritis; but this should not deter you from its use, for you will have time enough to treat the latter; whereas croup admits of no delay; besides, the gastritis is not intense if sufficient bleeding have been practised. In calomel also you possess an active means of provoking mucous secretions, and though many practitioners pass it by or reject it, because it excites salivation and produces phlegmasiæ that spread to the mouth and add to the inflammation of the croup, it is not to be despised. After bold antiphlogistic treatment has been practised, calomel may be administered in the dose of a grain every hour or two, until it produces evacuations; when the cough is no longer croupy, it should be given up. If, by its use, an enteritis has been produced, just as the emetics produced a gastritis, it is to be treated by the usual means.

When it has become too late to withdraw the false membranes by means of inhalation and emetics—when the patient is scarcely breathing at all—when his pulse is extinct, and he is close upon death, tracheotomy is the only resource by which, according to M. Bretonneau, the false membranes may be extracted as they are formed, until, as sometimes happens, the tendency of nature to their formation is overcome. His treatise on diphtheritis contains a very remarkable instance of success thus attained. I could cite another, related by my son, Casimir Broussais, in the *Annales de la Médecine Physilogique*, vol. xv. But the most extraordinary successful instance is that by M. Scoutetten of Metz, on his own child, only a few months old. The suffocation had been so rapid, that in a few minutes the child was asphyxiated. The father had called several of his confreres to his aid, who declared the child to be dead. "Yet," said he, "suppose I operate. I do not hold life to be an abstract being, but matter that needs to be stimulated. I will extract the false membranes, and inflate the lungs—there is nothing to obstruct me—the child moves not—I shall perform the operation with coolness." He did operate; and after an hour and three quarters of uninterrupted efforts, a first sign of life appeared, and the child was saved, and is at this day well. I know of no fact to be compared to this.

Thus far I have treated of the inflammations of the exterior of the body that are accessible to our senses. In the next lecture we will commence our initiation into the mystery of visceral phlegmasiæ.

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho:*

Session 1834-35.

LECTURE XLVIII

Pathology of Intestinal Worms.—It is impossible, in the present state of science, to determine the pathological condition of the intestinal canal, which gives rise to the origin of worms. It would be most important to determine this condition, as it would afford correct indications of treatment. It has been repeatedly observed that worms are found in the bowels of persons in perfect health, who were destroyed by some accidental disease. They have also been found in dogs that were killed in apparent health. They were detected by Andral in all states of the intestinal mucous membrane, red or pale, dry or covered with mucus. He informs us, however, that they were surrounded with mucus, under which the surface of the mucous membrane was red, but this was evidently the result of irritation, and must be considered the effect, but not the cause. Moreover, they have been found in every pathological condition of the mucous membrane, and even when it was in a healthful condition. According to this statement (and it cannot be questioned), the disciples of Broussais are in error, when they maintain that worms are not present unless in acute or chronic inflammation of the gastro-intestinal mucous membrane. The truth is, that we do not know the cause or origin of intestinal worms, and consequently we cannot prevent their formation. Is it only after the expulsion of worms that we are warranted in suspecting their presence in the bowels. The diagnosis is difficult; as their symptoms are equivocal, varied, are often present in other diseases, and are not to be depended on.

Symptoms of Worms.—There are no symptoms by which we can recognise the presence of worms in the bowels, except the rejection of them by vomiting or purging. All other signs of them are referable to gastro-intestinal irritation and its sympathetic relations.

Before we can understand or explain why irritation or disease in any organ of the body can derange and disorder the whole economy, we must know the anatomy of the body, which teaches us the continued nervous connexion between all parts, which accounts for their sympathies in health and in

disease. The anatomist experiences no difficulty whatever in understanding the structure and function of every organ, and the sympathy of organs in a healthful or diseased condition. This knowledge enables him to unravel the most complicated and multiform symptoms, to discover the primary seat of disease, and all the morbid phenomena connected with it. This can never be understood by private individuals. They cannot comprehend why pain or injury on a finger, toe, or any part of the body, may cause loss of appetite, loss of sleep, deranged vision, taste, smell, touch, hearing, or even tetanus. Thus they are astonished that the irritation of worms in the bowels can derange the appetite, irritate the mucous lining of the nostrils and lips, which is continuous with that of the stomach and intestines, cause itching of the nose or lips, or at the rectum, the opposite extremity of the digestive tube, induce bad health, paleness or yellowness of the countenance, languor, debility, irritation of the mucous lining of the generative organs, giving rise to yellow and purulent discharges, which have been too often ascribed to venereal contamination or attempts at violation, as already stated.

In all these symptoms the physiologist recognises the existence of an irritation, but he cannot determine its exact position without proper inquiry. He knows that irritation in any one part or organ of the body may cause the train of symptoms now described.

In addition to the symptoms already mentioned, those affected with worms, whether children or adults, have deranged appetite, diminished or voracious, foul breath, itching of the nose or anus, pale, sallow complexion, headach, nausea, hiccough, griping, diarrhoea, or constipation. The general health is bad, there is languor and weakness on making exertion, and the sleep is disturbed or unrefreshing. It is often disturbed in the male by priapism, seminal emission, and in the female by genital itching, amounting, in some cases, to nymphomania. A woman, aged twenty, has been affected with the last disease; four others have suffered from hysteria, epilepsy, convulsions, and even mania, from the same cause. Worms, as well as other sources of intestinal irritation, frequently induce hydrocephalus. A child supposed to labour under the last disease was ordered a large dose of calomel, which acted as a purgative and expelled some worms, when amendment took place, and in a few days a perfect recovery.

It is also recorded, that spasmodic, troublesome cough, which occurred periodically, hæmoptysis, and supposed phthisis, were speedily cured by the use of anthelmintics, or the proper medicines for worms. Morton, and other authors, describe verminous phthisis, as Dr. Wilson Phillip has subsequently done dyspeptic phthisis. It ap-

pears from the preceding statements that the signs of worms are very numerous, that there are few which are not obscure or equivocal, on account of the sympathy or relation which exists between the intestinal canal and all parts of the body. The most common symptoms are furred tongue, with a red line from the base to the summit or tip, nausea, pain in the stomach and bowels, especially round the navel, appetite lost or insatiable, belly swollen, hard, and often tympanitic, motions from the bowels confined, or fluid containing worms, or accompanied by tenesmus (a frequent forcing and apparent desire to evacuate the bowels), the urine is white or milky on cooling, and sometimes it is foetid, or very offensive.

The respiration is deranged or difficult, or attended with hiccup; there is a dry, convulsive, or suffocating cough; the voice is changed—may be weak, feeble, or entirely suppressed (aphonia).

The circulation and pulse, also, present anomalies; the heart often palpitates violently, the pulse is frequent, hard, or intermittent, and sometimes there is occasionally bleeding from the nose.

Children subject to worms have inquiet or disturbed sleep; those that are weaned grind their teeth, they are giddy, and have singing or noise in the ears. The eyes may be fixed and without expression, there is a bluish circle about the lower eyelids, the pupil is often very much dilated, the conjunctiva is sometimes yellow or jaundiced, there is itching or discharge from the nostrils, the countenance is pale, yellow, or leaden-coloured; there is lassitude, restlessness, extravagance of actions, emaciation, remittent or hectic fever, paralysis, convulsions, and sometimes death.

These are the commonest symptoms of worms, though they may accompany many other diseases. They are said to vary according to the species of worms contained in the alimentary canal.

Thus, in ascariides, there is itching, gnawing, or insupportable pruritus or irritation in the rectum. The lumbricus (*ascaris lumbricoides*) excites pain or irritation in some part of the small intestines, stomach, or about the navel.

Tænia is suspected when there is a sense of weight in the abdomen, and a sense of gnawing in the stomach. Van Swieten said he had observed rumbling in the bowels; and Haller was of opinion, that this species of worm was most troublesome at the first or last quarter of the moon. Another singular opinion was that of Butler, who supposed that worms were not injurious to children, but ought to be considered as a sovereign remedy which nature employed to free the intestines from impurities, by augmenting the peristaltic motion. Dr. Parr thought worms conducive to health. It is unnecessary to expose the absurdity of this opinion.

It appears, from the preceding statements, that it is extremely difficult in many cases to determine the existence of worms, and that the symptoms may arise from other causes, especially from irritation in the stomach and bowels, from teething, and disease in the head or chest. Keeping this fact in view, we should avoid the popular error of suspecting worms whenever a child is ill, or has the usual symptoms; and refrain from the erroneous practice of exhibiting anthelmintics too long or too freely, as these are calculated to aggravate intestinal irritation, inflammation, or ulceration. We daily see numerous cases at the hospital and dispensary, among an average of eighty patients, of children affected with intestinal irritation, accompanied by all the symptoms of worms already described, which are cured by changing the diet, exhibiting mercurials and tonics. These cases are what are termed infantile remittent fever by writers, and worm or teething fever by mothers. They are generally cured though a single worm is not passed during the treatment.

Verminous, or Worm Fever, is by no means so common a disease as is generally imagined, nor can I understand the possibility of its occurrence as an epidemic, as stated by some writers. I have observed, and successfully treated, many cases of this supposed fever, without the discharge of worms. I shall describe its symptoms and treatment under the head of *Infantile Remittent Fever*.

Treatment.—It is generally admitted, that persons in delicate health, and whose digestion is bad, are most liable to worms. It has also been remarked, that parasitic animals chiefly infest delicate plants as well as animals.

The indications of treatment are based on this conclusion, and are first to prevent the development of worms, by strengthening the system by bitters and other tonics; and second, to expel them. To fulfil the first indication, we exhibit tonics, which excite the fibres of the digestive canal, improve digestion, and prevent the accumulation of mucosities, which serve as a nidus or bed for worms. It is on this principle that the infusion and syrup of rhubarb are so efficacious in cases of very young infants. The general health should be improved at the same time by nutritious aliment, exercise in the open air, friction on the body and other hygienic means. A vast number of remedies have been proposed for the removal of worms, many of which are now considered useless. These remedies are termed anthelmintics or vermifuges. The chief of them are drastic purgatives, which, by acting powerfully, cause the expulsion of worms. The mucosities in which the animals are imbedded are partially expelled, their bodies are exposed so, that anthelmintics may come into contact with them, and destroy them. These

remedies are divided into two classes; 1, those which operate chemically or mechanically; 2, those that destroy worms by poisoning them, or by other means.

In the first class we rank all drastic purgatives, all the oleagenous vermifuges, as castor oil, oil of cloves, beech-nut, olives, turpentine, croton, tiglium, &c., sulphur, tar, sea-salt, muriate of soda, filings of tin, quicksilver and its preparations, cowhage, &c.

The second class includes male fern, heliobore, tansey, savin, rue, dittany, tobacco, worm-seed, bark of the bulge water-tree (*Geoffræa inermis*), cabbage tree, spigelius, and scabioria Indica.

These remedies require the greatest prudence in their administration, according to the age and strength of constitution of the patient. I shall enumerate the simple and compound remedies most generally employed for the different species of intestinal worms, and once more refer to the rules I laid down on infantile therapeutics, and to the frequency of intestinal irritation, inflammation and ulceration in supposed cases of worms, which will be aggravated and rendered fatal by anthelmintics. Purgatives act by dislodging the usual contents of the bowels, and the accumulated mucus which covers the bodies of worms, so that a vermifuge may be applied to them. It often happens, that it is only after a free use of purgatives, a single dose will expel one or many worms, and we can only account for this result upon the foregoing principle. Brisk cathartics should always lead the way, as children's bowels are generally loaded with mucosities. Some suppose that the oleagenous purgatives intermix with the intestinal mucosities, block up the respiratory pores of the worms, and thus destroy them. These and other remedies are most useful when the worms are in the stomach and small intestines, as they can, under such circumstances, come in direct contact with them, in an undiluted and undecomposed state, which is not the case when they have to traverse the whole digestive canal, in those instances in which the insects are in the rectum. These remedies are useful as clysters, when worms are in the rectum; but they are by no means invariably successful when used either way; one of the best anthelmintics is oil of turpentine, as it acts as a powerful purgative, and often comes in direct contact with all kinds of intestinal worms. It may be administered in a well marked case of worms, of whatever species, in the dose of from twenty to thirty drops, with half a tea-spoonful of castor oil, to an infant between one and two years old, but the dose must be increased or diminished according to the strength of each patient. It has been administered to adults in the proportion of one to three ounces, or two middle-sized wine-glasses full. An ounce, or two moderate table-spoonful, have been exhibited to a child of ten years old. It must always

be recollected, that oil or spirit of turpentine is a very dangerous medicine in large or excessive doses. It has caused giddiness, intoxication, violent purging, and discharges of blood from the bowels and bladder. It ought only to be prescribed by an educated medical practitioner. I have given a very full account of this remedy in my translation of the New Practical Formulary of Hospitals, 1835. It is generally used for tape-worm. The Hungarian balsam, so lauded in cases of worms, is only oil of turpentine, produced by the *pinus sylvestris*, and sold at a most extravagant price. It is given alone, or combined with castor oil, to infants and adults affected with worms. It is, however, rarely administered in cases of infants and children.

The empyreumatic oils of petroleum or hartshorn are now seldom used as anthelmintics.

Sulphur and sulphurous mineral waters are seldom employed or depended on at present in cases of worms. I have fully described the latter in my treatise on Mineral Waters and the Formulary already mentioned.

The muriate of soda, or common table salt, is still very much employed, both by the mouth and rectum. Mr. Leigh Thomas related a case of a gentleman, in the Transactions of the London College of Physicians, vol. 1, who took two pounds of table salt in water at once; it purged and vomited him, and caused the expulsion of a large quantity of mucus and a prodigious number of ascarides, after all other remedies had failed. He repeated the dose, though it caused severe strangury, was followed by the same effects, and effectually cured him. It is scarcely necessary to observe, that this would be a dangerous dose in most cases of adults.

The filings of tin, in the dose of from 3ij—3viij, mixed with treacle or honey, is a successful remedy against tape worm. Many unprincipled men sell the powder of lead for that of tin, as it is much more easily prepared. This may act as poison, and should never be employed.

Quicksilver, also, acts mechanically, and has been given in immense doses. It is now rarely if ever employed. Various preparations of this substance are favourite remedies; though many families object to them, if called mercurials or mercury. I need not remark, that mercury is as safe as milk, if used judiciously. It is scarcely necessary to observe, that calomel may be given in much larger quantities to infants and children, than to adults, with far greater safety. In croup and hydrocephalus it is urged to an extent that few adults could bear. I have fully described the effects of this and all other mercurial preparations in my translation of the New Practical Formulary of Hospitals, already quoted.

Another very powerful remedy for worms

is *dolichos pruriens*, or cowhage. It was first employed by the planters in America, mixed with treacle or honey. The syrup is generally preferred in this country. The dose is from twenty to sixty grains to a child under two years old, and double this quantity for an adult. The medicine was originally given for three successive mornings, and then a full dose of rhubarb was administered. Dr. Bancroft stated, that it expelled every kind of worms, and never failed in hundreds of instances.

Many of the formerly lauded vermifuges, as worm seed, tansey, savine, rue, dittany, dittany of Crete, fraxinella, angelica, and many others, are seldom or never employed in this country at present. They are still used in continental Europe, and the prescriptions are given in my translation of the New Formulary of Hospitals.

The angelica archangelica is much praised by Linnæus as a remedy for the gordius or hair worm, which is endemic in Lapland. The fresh juice of assafœtida is also lauded by Hoffman. It is said that one drachm of this smells stronger than one hundred pounds of the assafœtida of commerce.

The hellebores are too violent for common use, and are now seldom employed as anthelmintics. The seeds of cavadilla are given in foreign countries in the proportion of two grains to an infant from two to four years old, eight grains to a child of six years, and ten to a child from eight to ten years of age. Gamboge, scammony, and aloes are old and favourite remedies.

The cabbage tree and bastard cabbage tree, in the proportion of an ounce to a pint of boiling water, are said to be efficacious remedies for worms. Dr. Rush stated that he employed thirty pounds weight of the first without a single failure.

The male fern is lauded in Germany, and strongly abused by Cullen. It was the specific of Madame Nouffer. It is said by some modern writers, that it will kill the *tænia* or the patient. It is seldom employed in this country at present.

Foreign writers recommend Indian pinks, and worm grasses, which are considered two violent purgatives.

Tobacco is also a powerful anthelmintic.

—o—

Foreign Medicine.

State of the Medico-Legal Doctrines concerning Insanity in Germany. By M. Taufflieb.

(Concluded from page 211.)

THE second question runs thus—If monomania consists in the confinement of the intellectual functions by a predominant idea, should not an individual be regarded as monomaniac whose mental faculties are swayed

by a strong affection, by a violent passion? or in other terms: should not the existence of monomania be admitted or rejected according as the reason of the individual shall have been disturbed by an *erroneous conviction* or by a *violent passion*? To this question the German medical jurists have paid particular attention, the more, as the manner in which it has been sometimes solved, led to the authorization of serious abuse, some having sought for justification, even in the culpable passions of the accused. In so complicated and difficult a matter, it will be necessary to proceed with some order in the exposition of facts and opinions, and, above all, examine the subject in its different points of view, and dwell on the disputed doctrinal points connected with it.

A. It may first of all be asked, whether a strong passion, in one whose reason is habitually sound, can momentarily so far disturb the mental faculties as to render him incapable of properly appreciating the moral character of some of his actions. The possibility of such a state is admitted by all medical jurists, and numerous facts in daily observation might be brought in support of the opinion. Hoffbauer even considers that there are many degrees, "in the momentary aberration caused by the passions and inordinate movements of the mind." Thus, for instance, a sudden emotion in a person convicted of falsehood, may only produce a slight perturbation that does not deprive him of the power of reflecting on his real position: whilst a violent passion, such as revenge, is sometimes sufficient to do away with all reflexion.

B. If strong passions are capable of producing a momentary aberration of reason, should this kind of transitory alienation be assimilated to monomania? This question has most generally been answered in the negative: the most celebrated authors have vehemently protested against the tendency of some physicians to confound the momentary aberration produced by the passions with an actual state of disease. But whilst the passion in question may be the consequence of a monomania as well as of violent passions, it never *constitutes* monomania, and to maintain the contrary, would be taking the effect for the cause. Now it should be remembered that it is the *cause* of the intellec-

tual perturbation, that it is more particularly necessary to establish in criminal matters. The judge does not ask the physician whether the crime has been committed in the agitation of a violent passion, or in the calm mood of a cool premeditation—such data are furnished by the several deeds of the process; he wishes to learn whether any disease, independent of the volition of the accused, disturbed his reason at the time of committing the act. Thus put, the question leads us to examine whether a violent passion, *considered as the cause of intellectual disorder*, can be likened to a disease, that is, to a disease existing *per se*, without any participation on the part of the person affected with it; (remark that there is no monomania but on the latter condition).

The answer admits of no doubt. Henke, Heinroth, Clarus, Feurbach, Wildberg, and others exclaim against such a confusion of ideas. "There is this essential difference," says Henke, "between violent passions and a mental disease, that the former may be mastered by a man in possession of his reason, whilst an insane man can do nothing, by his own will, against the disease whose victim he is*." And the majority of German medical jurists have given a similar opinion.

C. Can a violent passion become a cause of monomania, and this once established lead to acts of violence and even to homicide? Physicians that have made observations on a great number of insane, answer this in the affirmative. There can be no doubt that a strong passion, such as fear or jealousy, may after a lapse of time alter the reason, and an instance of this has been given. This may even occur in cases where the affected person has striven to combat the emotion that caused his misfortune. Now, ought one who commits a crime in such a state of mental faculty, to be considered as having acted as an impassioned or an insane man? Dr. Elwert's conclusions from the case of this kind mentioned above, are the answer to this question. But we may go further back, with Heinroth, whether an actual mental alienation, *the result of culpable passions*, can be advanced in excuse of the insane person, or

whether a responsibility guided by the causes of the alienation, which is in some degree voluntary, should be admitted? This question, which is not a medical one, will be hereafter alluded to.

D. According to several German jurists, there is a mixed, abnormal condition of the mental faculties, in which a mixture, as it were, of passions and madness may be observed. Under this head, that morbid disposition called by Platner *iracundia morbosa* must be placed. In the works of Pyl, Henke and Frederick Hoffman we find cases that may be referred to this category. Henke states that those affected with this kind of incomplete madness are distinguishable from sane persons by the facility with which their anger is transformed, without any reason, into ungovernable fury. They differ from maniacs in the short duration of the attacks, to which reflexion and the free exercise of the intellectual functions speedily succeed. This singular tendency to attacks of passion is ordinarily connected with divers corporeal affections, which a judicious medical man will readily discover and interpret.

In Henke's Journal a case is given that they have thought fit to refer to this state of incomplete insanity. Hortense K. and her daughter, fish-women residing at G. in Bavaria, had been taken before the police commissary for hawking. As the daughter thought proper to use most abusive language to the magistrate, she was put into prison, on hearing which Antoine K., her father, hastened to the Hôtel de Ville, met the police officer that had taken her, seized him by the hair of his head, and maltreated him in a very serious manner until he was rescued. Antoine K. was brought to justice, when his counsel set up the defence of temporary insanity at the commission of the act. M. Beck, of Weissenhorth, was employed to examine the state of mind of the accused; his inquiries led him to admit in Antoine K. a morbid tendency to attacks of fury, constituting the lesion called by Platner *iracundia morbosa*. M. Beck rested his opinion on the following circumstances, met with in the individual in question. Biliary temperament, venous plethoric constitution, derangement of the digestive organs, characterized by obstinate constipation, incipient hemorrhoidal affection, sanguineous

* Henke's Lehrbuch des Gerict. Medicin. § 284.

congestion of the head. To these symptoms, which denoted a hypochondriacal constitution, might be added a considerable degree of nervous excitability, excess in spiritous fluids, neglected education, extreme affection for his family, which affection had been terribly outraged by the punishment of some members of it. Lastly, the cicatrices of former wounds which he had received in several quarrels that he had been engaged in were in some sort a visible evidence of his extraordinary tendency to paroxysms of anger. The conclusions of Dr. Beck were therefore adopted by the court, and the man was acquitted.

Perhaps the mental lesion in question may be thought to have been too readily admitted, and for reasons that do not rigorously prove the existence of a mental disease in the accused. It is also probable that other medical jurists would have given a more severe judgment of the case. In fact, if we compare this case with one that came under the observation of Professor Clarus some years ago, we shall perceive nearly similar psychological conditions interpreted in a totally different manner. It was the case of an individual who killed his mistress from jealousy. He had been hypochondriac for several years, and exhibited physical signs resembling those that obtained in Antoine K.: moreover he had been for several years tormented with all sorts of hallucinations and sinister visions that appeared to have exerted a certain influence over his morals. In his consultation on this man, M. Clarus remarked that the physical symptoms denoting sanguineous congestion of the head, irregular digestion, &c. indicated a predisposition to mental maladies, but were no proof that such disease actually existed in the individual exhibiting them. M. Clarus does not deny that the great excitability of these persons renders them much less capable of resisting the causes that could induce inordinate commotions of the mind, and thus make them certainly not of sound estate. But, says he, it is the judge's place, in punishing, to weigh these relative difficulties, which doubtlessly diminish the culpability, but do not rid the act of it altogether. The physician being called upon to state whether the accused was morally free or not at the time of the act, should only allow the impossibility of resistance from reasons that fully

establish such impossibility: in other words the difficulty of resisting ought not to be confounded with the impossibility. Clarus therefore came to conclusions opposed to those of Beck, on a very similar case*.

Third question.—*What data does our medical knowledge of monomania and the delirium of the passions furnish, relative to the questions of culpability and penalty?*

1. Monomania being a partial delirium connected with a single or very few objects, it may be asked whether the monomaniac is responsible for actions that have no connexion with the object of his delirium? M. Hoffbauer maintains that such acts should certainly be valid in civil law, and culpable in criminal law. "There is no reason," he says, "why a man that fancies his feet to be glass, and who is otherwise in good health, should be incapable of planning, or excusable for enacting criminal actions foreign to his fancy." M. Henke has not treated of this question specially, but, proceeding on the principle that the insane are only excusable in the acts of violence, because they are deprived of moral liberty, he leaves to physicians the office of examining whether that liberty has been really encroached on by a disease.

2. With regard to the distinction drawn by medical jurists between true monomania and the delirium of the passions, it is requisite to inquire what weight this medical distinction should have in the manner of judging of and appreciating the culpability of an accused person. It should be first of all remarked that moral liberty being the essential and fundamental condition of all responsibility, it should be looked on as the starting point in the discussion of questions of culpability. But as the laws have sometimes specified the causes of the abolition of moral liberty (mania and lunacy for instance), jurists have endeavoured to connect with special causes the different conditions of irresponsibility that may be presented, in order to remain, as near as may be, faithful to the letter of the law. As regards the physician, the reasons for irresponsibility only exist in nature, and there he seeks them rather than in the definitions of the law. Proceeding thus,

* Trial of the murderer Woyseck, in Henke's Journal, 1824.

his office appears more particularly to consist in determining whether the accused has been morally free or not, and next, whether moral liberty has been done away with in him by his own fault, or without the slightest co-operation on his part; and such is the mode that has been defended by Henke, against those medical jurists who would confine the question within the narrow limits of juricon-sult definitions.

A. We have already seen that the delirium of the passions should not be confounded with monomania: how then should it be considered in criminal justice? And can it be advanced as a justificative datum for the accused? M. Henke lays it down that extraordinary passions are capable of abolishing moral liberty, but that this circumstance does not justify the accused: for man, being a rational being, ought to master his passions. This opinion differs from that of M. Amelung, who thinks that regard should be had to certain temperaments, the bilious for instance, in the appreciation of an individual's culpability, since such are more liable to anger than those of the lymphatic temperament. All this Henke rejects, and says no excuse can be found but in actual diseases, when such can be traced by the physician, or certain purely accidental circumstances that will be mentioned hereafter. M. Wildberg's opinion is the same. So also is M. Hoffbauer's; he thinks, however, that the action committed by a man in the wildness of passion, can only be imputed to him inasmuch as he has been able to foresee the development of the passion. A man, for instance, who insults another, and in the quarrel that ensues commits a serious crime, ought to answer for the act, because he might have put himself out of the way of the passion; whereas a person whose reason is troubled by a sudden fright, for instance, from something that threatens his life, may commit acts, at such a time, for which he cannot be responsible, any more than the cause that has momentarily alienated his reason. Such also is M. Clarus' manner of viewing the subject. M. Feberbach says that "a criminal action committed in a state that excludes moral liberty, is not the less punishable if the cause that produced that state can be imputed to the enactor of the deed*."

The *excusable* exaltations of the mind, alluded to above, are, according to M. Henke, sudden terror, the fright that may seize a person necessitated to defend himself, a strong fit of anger, provoked by some outrageous calumny.

B. Admitting that the delirium of passion only destroys the responsibility in so far as this alienation has not been the effect of a culpable cause, should not this restriction be extended to permanent alienation, the causes of which may be imputed to the patient? It is undeniable that anger or jealousy are not so apt to produce a permanent insanity as a momentary alienation; and as in transitory delirium the accused is responsible for his actions whenever he is responsible for the causes of his delirium, it would appear natural to apply these same principles to permanent alienation. M. Heinroth observes, that "justice and humanity demand that the rigour of the laws should not be applied to wretched lunatics, who are already sufficiently, by the consequences of their faults, in their social demise."

C. Medical jurists have had a care to establish a distinction between the passions, properly so called, and certain morbid impulses of the senses, constituting a veritable disease, capable of abolishing reason and leading to excesses. Of this kind are, for instance, certain neuroses of the genital organs, the attacks of which are complicated with an actual mental alienation. According to the principles already laid down, a simple transitory alienation of reason, so long as it is produced by a disease, that is, by a cause independent of the will of the accused, ought to be looked on as a reason for excluding responsibility. Such diseases are, however, extremely rare: and M. Henke remarks, that the examination of them should be very strict, lest we should be consecrating immorality, by too readily attributing to a disease, excesses that are the effects of a libertine career alone.

In summing up what has been detailed in the preceding pages, we arrive at the following conclusions:—

1. The German medical jurists are agreed in the admission of a monomania dependent on a peculiar condition of the affective faculties and the will—instinctive monomania.

2. The only difference of opinion is, as to

* Lehrbuch. 2te. Auflage, § 87.

whether, during the paroxysm, the intellect remains sound, or is necessarily perturbed.

3. Among the grounds on which to establish instinctive monomania, the physical symptoms, shewing hypochondriacism, are more particularly reckoned, as have also been epilepsy, hysteria, the puerperal state, the coincidence of some period of evolutions, as puberty, certain moral circumstances drawn from the character and habits of the patient, &c. &c.

4. Rational monomania consists in a vicious relation between the senses and external objects, according to some; while others maintain that hallucinations may exist without any monomania.

5. Instances of the several varieties of monomania appear to prove that this disease has been most generally admitted in practice, not on account of the establishment of the existence of an illusory idea in the patient, but on the certain knowledge that under the influence of this illusion the intellectual faculties were actually interfered with in their operations.

6. Strong passions may also momentarily pervert the intellectual faculties, but this is not to be confounded with monomania, which is a real disease, existing *per se*, and without any co-operation on the part of the affected person.

7. Yet monomania itself may originate from culpable passions, and consequently be the fault of the patient. According to law, however, this disease, once ascertained, precludes all responsibility.

8. The passions themselves only abolish or even diminish the responsibility of the accused in cases where they are brought into action in spite of him, and by some powerful but purely accidental cause, such as the sight of danger that threatens life.

9. There is a mental condition, characterized by a sort of mixture of exaltation, produced by the passions, and of incipient mania, which, according to those jurists who admit such a state, destroys responsibility.

10. The passions under the dominion of reason are not to be confounded with extraordinary desires that are owing to a real disease capable of producing a veritable alienation, and of leading the patient, in spite of himself, to serious excesses of conduct.

11. The habitual maniac is, according to several writers, responsible for acts that have no relation to the object of his delirium.

—o—

DISEASES OF THE GENITO-URINARY ORGANS.

(Concluded from page 144.)

Incision of Strictures.—The employment of incision was practised three centuries since by De Viga and Dias, and in the commencement of the seventeenth century by Mayerne in France. Doerner, La Fayer, and Viguerie employed a lancet covered by a catheter; and this was also used about thirty years ago, by Sir Charles Blicke, of St. Bartholomew's Hospital, and Mr. Nayler, of Gloucester. Sir Charles and Mr. N. soon abandoned this instrument; but it has been lately repropounded by Mr. Stafford*. His directions as to the use of this instrument deserve attention, and I shall therefore give them in his own words.

"Before using the instrument, the exact distance of the stricture from the extremity of the urethra should be ascertained. In the armed catheter, which is intended to divide strictures over the wire, which serves as a guide, the wire must be introduced through the stricture first. The mode of accomplishing this is, by passing the smallest possible-sized catheter, made to contain the wire, into the bladder. The wire, which is double the length of the catheter, and blunted at one end, so that it may not injure the bladder, is then pushed forward, and the catheter gradually withdrawn, by which the former is left in the canal of the urethra. The armed catheter is then passed over the wire, until its point rests against the stricture (which is known by means of the graduation), and being held securely in such position, the handle of the stilette is pressed gently and gradually. As soon as any impression is made, the lancets should be allowed to retire into their sheaths, and the blunt point of the instrument urged forward. If it do not pass on, the lancets may be again used as before. After the stricture is divided, the armed catheter should be withdrawn, and its place supplied by one of elastic gum of the same size. This should remain for a day or two, to prevent the reunion of the divided parts, and to preclude the possibility of extravasation of urine; and, on its removal, a bougie should be passed twice in the week, or as often as may be judged necessary, for some time; and the same treatment adopted as for stricture in general. The armed stilette, intended to divide impermeable strictures, must be used precisely in the same manner as the other, of course excepting the wire, which cannot be

* Stafford on Strictures, 1829.

introduced; and the same directions for the after treatment are necessary for both."

Mr. Stafford relates several successful cases after common and caustic bougies had failed. This plan is less dangerous and painful than cutting down on the stricture, and passing a catheter into the bladder; but to appreciate its value in a proper manner, the cases detailed by Mr. Stafford should be carefully perused. It appears to me that it would be advisable, when catheterism is found impracticable, and when the surgeon has no other resource than puncturing the bladder, or cutting through the stricture. The chief danger attending it is profuse hæmorrhage, which happened in Mr. Nayler's patient, and I have reason to know, in one of Mr. Stafford's own patients, who consulted a friend of mine, and mentioned the circumstance. He states in his work that the bleeding is inconsiderable, and that there is no possibility of making a false passage. He prefers this plan in all long existing indurated strictures.

Another operation has been lately performed in this country—cutting down on the stricture, and passing a catheter into the bladder. Before I describe this plan minutely, I must premise that Desault and Mr. Hunter incised strictures, but confined the operation to cases complicated with false passages, or to those in which the urethra had ulcerated behind the stricture, and the urine had been infiltrated into the cellular tissue of the perinæum and surrounding parts. This operation has been lately modified by Sir Charles Bell, and it has been performed by most of our hospital surgeons, as attested by the clinical reports published in the medical periodicals. Sir Charles Bell, Mr. Stanley, and the late Mr. Shaw, were, I think, among the first who employed it; and the mode of performing this operation is as follows:—The patient is secured, as for the operation of lithotomy, and the operator passes a grooved staff down to the stricture, where it is held by an assistant; the surgeon cuts down on the point of the instrument, and continues the incision through the stricture. A catheter is now introduced from the inferior part of the wound into the bladder, and the staff withdrawn. A gum elastic catheter is now passed through the urethra and the strictured portion, that in the bladder is removed, and the former passed in its place. This should be left in the bladder for several days, in order that the wound may heal over it as speedily as possible. If it should be withdrawn in a day or two, there may be great difficulty in re-introducing it. In one case the catheter was left in the bladder for three weeks, without any inconvenience*. In general, it ought to be removed in six or eight days, as it might become encrusted with sabulous or calculous matter. The after treatment should be con-

ducted on ordinary principles. In some cases the perinæum is found so much thickened, that it is difficult and sometimes impossible to discover the tract of the urethra; an example of which occurred to Desault. This operation has been frequently performed with success in the London hospitals. Desault considered it a useless one.

Another mode of incision of strictures has been proposed by Mr. Benjamin Phillips, and practised, according to him, with invariable success. It is much less tedious and difficult than that just described, and should it prove equally successful on future occasions, will be very generally performed. In cases of indurated stricture which it is expedient to remove immediately, Mr. Phillips introduces in a canula an instrument with a circular cutting edge, and when the canula is in contact with the stricture, a probe or stilette situated in the centre of the cutting portion is passed into the orifice of the obstruction, and keeps the instrument in a proper position. The cutting edge is then advanced and pushed against the stricture, a circular motion being given to it, similar to that for trephining, when after two or three minutes the stricture is removed, and the canal rendered pervious. "The operation may be performed with much facility, is wholly unattended by danger, and the pain is not much more considerable than that which accompanies the application of caustic. The operation has been repeatedly performed by me with complete success. It possesses the following advantages over caustic: that of being more completely under the control of the operator, of creating less inconvenience than is occasioned by cauterization (a single operation being under any circumstances sufficient for the removal of the disease), and of being applicable in cases when caustic, either from excessive induration, nervous irritability, or other circumstances, cannot be so advantageously employed. But, to ensure these advantages, I cannot conceal from myself the conviction that much dexterity and long experience in the use of the instrument are necessary*." This able writer is of opinion that no apprehension need be entertained with regard to hæmorrhage, either after caustic or incision, as this may be arrested, he states, by affusion of cold water on the genitals; and, if this fails, by introducing a bougie of the largest size, and compressing the penis and perinæum. Mr. Phillips seems to have forgotten the cases of profuse hæmorrhage detailed by Sir E. Home and Sir A. Cooper, already mentioned, in which all the means he advises had failed. He gives a comparative view of his success by various modes of treatment, which is so instructive and important that I cannot refrain from quoting it.

"These observations were made in one hundred and nineteen cases of stricture.

"Of these one hundred and seventeen had suffered from urethral discharges.

In 49, astrigent injections had been used.

5 had been subjected to forced catheterism.

29 had, during the progress of the disease, complete retention of urine.

6, retention of spermatic fluid.

6, catarrh of the bladder.

7, paralysis of the bladder.

13, urinary fistula.

6, urinary abscess without fistulous communication with the urethra.

4, spasmodic affection of the urethra, without organic affection.

4, urethral hemorrhage, previous to and during treatment.

14, tumefaction of the prostate.

5, tumefaction of the testicle.

8, diseases of the skin.

"This is then a fair estimate of the frequency with which individual complications occur.

Of the hundred and nineteen cases,

36 were treated by dilatation, of whom

11 only were cured by that means, and of the remainder

19 were afterwards cauterized successfully.

81 were cauterized primarily; of these

72 were successfully treated by this means.

Of the 72 who were successfully cauterized, 13 had relapses.

Of the 72 who were cauterized,

65 were treated by consecutive dilatation.

Of these, 13 had relapses.

In 7, consecutive dilatation was not employed, and no relapse occurred.

5 cases were incised by the urethrotome.

4 of them successfully, the obstruction being at once removed: in the other the operation was not completed.

"In seven cases of cauterization, when the cure was permanent, and in the four cases by incision, consecutive dilatation was not employed.

Of the thirty-six cases treated by dilatation,

4 were in persons above 60,

20, in persons between 40 and 60,

8, in persons between 25 and 35,

4, in persons under 25.

"Of those above 60, 2 failed; amelioration only having been produced.

"Of those between 40 and 60, 4 were cured and 16 failed; the reappearance of the disease soon following the suspension of the treatment.

"Of those between 25 and 35, 3 were cured and 5 failed, the disease soon reappearing.

"Of those under 25, all were cured.

"In those nine cases where cauterization failed, the parties were of the following ages: 42, 45, 58, 60, 76, 63, 69, 76, 77.

"The patients of sixty-nine and seventy-seven died of cerebral affection during the treatment; the patient of seventy-six became impatient and was lost sight of; the four younger patients, in consequence of a relapse, refused to undergo further treatment: of the other two I can give no account.

"In the 72 cases where cauterization was successful,

8 were above the age of 60;

of these were relapses 3.

24 were between 45 and 60;

of these were relapses 6.

22 were between 35 and 45;

of these were relapses 3.

18 were between 20 and 30;

of these was relapse 1.

In the five cases of incision—

4 were between 45 and 60;

these were all cured.

1 between 40 and 45, not cured.

The cases then, during the progress of which total retention occurs, are in the proportion of one in four. Those in which perineal abscess occurs are as one in six. Those in which fistulæ occur are as one in nine. Those in which spasmodic strictures, in the absence of organic disease, occur, are as one in thirty. Those in which urethral hemorrhage occurs, in a similar proportion. The cures by dilatation are as one in three. The cures by cauterization are as fourteen or fifteen in sixteen. I am not in a condition to state the proportion of relapses after dilatation: those after cauterization are as one in seven or eight; and the age which afforded the greater proportion of relapses was above sixty. Of the cases of stricture which are presented, the proportion occurring at given periods of life is as follows:

From sixty to seventy, one in twelve.

— fifty to sixty, two in eleven.

— forty to fifty, three in eleven.

— thirty to forty, four in thirteen.

— twenty to thirty, one in seven."

As there is great diversity of opinion with respect to the comparative value of these operations in cases of retention of urine, and as many eminent surgeons prefer puncturing the bladder, I shall proceed to describe that operation.

Obstinate Retention of Urine—Failure of Catheterism—Puncture of the Bladder through the Rectum, Hypogastric Region, and Perinæum.

—Retention of urine may be produced by many causes; but I shall notice the most common—namely, stricture of the urethra. A person who labours under the slightest affection of this kind, is never free from the liability to retention of urine. Irritation may be excited in urethra by various remote causes, long riding on horseback or equitation, excessive drinking or sexual intercourse, exposure to cold, more especially when the patient has long suffered from stricture, and is of an irritable habit. The symptoms of retention of urine are, an urgent desire to evacuate the bladder, pain in the organ, in the groins, loins, and genital organs, great straining, nausea or fainting, deranged pulse, thirst, and fever. Though all these symptoms exist, the patient may not be able to pass a single drop of urine, but in general he evacuates a few drops ac-

accompanied by the most agonising pain. The usual practice in such cases is to endeavour to pass a catheter into the bladder, and if this cannot be effected, to order a warm bath, fomentations, leeches to the perinæum and hypogastric region, venesection, opium, tartarized antimony, and the tobacco enema; and should all fail, the bladder must be punctured.

Various modes were proposed for puncturing the bladder, but the first was, I believe—

The Operation in Perineo.—This was proposed by Riolan in 1648, according to Heister*. Thevenin performed it in 1658†, and Folet in 1677‡; Garengot claimed the priority in 1720§. Sæmmering gave the credit to Latta. The inconveniences that attended this operation caused it to be universally abandoned. It must be obvious that there was great danger of making false passages, of hæmorrhage, of wounding the prostate, rectum, and vesiculæ seminales. Bichat objected on account of the liability to make false passages; Sæmmering, as it induced hæmorrhage, inflammation, and the presence of the canula prevented the patient from sitting or standing; Sabatier, as an operator could never be certain of the course of the trocar, and as it might not pierce the bladder, which changes its position according as it is more or less distended; while Murray, Westbretch, and Reid, relate cases in which it failed, and in which recourse was had to other modes of puncture. Callison held it impracticable when the prostate was enlarged; and Boyer maintains that it requires more dexterity than the other modes of puncture. These and many other writers object to it, and it has fallen into complete disuse in this kingdom. The next mode of operation was—

Puncturing through Rectum.—This was proposed in 1760 by Flurant, chief surgeon to La Charité at Lyons||. This plan has its advocates and opponents. Those in favour of it are Callisen, S. Cooper, Murray, Sabatier, Howship, Rainard, and Hey. These eminent surgeons assert that this is preferable to all other methods of puncture, that the puncture is made remote from the seat of the disease, and that there is no danger of urinous infiltration. They state that it more completely empties the bladder, causes less pain, as neither skin nor muscles are penetrated, and lastly, that it is more easily performed.

Those who oppose it are Boyer, Sæmmer-

ing, Chopart, Paletta, Sir A. Cooper, Carpue, and many others. They urge the following reasons in support of their opinion—that the bladder when distended may be so remote as to elude the possibility of puncture—that the canula will irritate the rectum, cause tenesmus, and prevent the patient from sitting, or lying on his back;—that the exploration with the finger is very painful to some patients—that the peritoneum may be wounded—that the existence of tumours or scirrhous substances in the bladder or rectum may prevent us from ascertaining the degree of distention of the bladder with the finger—that the vesiculæ seminales may be wounded—that it is not practicable when the retention has been induced by confusion on the perinæum, causing inflammation of this part or of the prostate; that the trocar may divide one of the hæmorrhoidal arteries, and lastly, that the puncture may continue fistulous.

The last mode of puncturing the bladder was the—

Hypogastric Operation.—This mode of operating was first proposed by Tubier*, Merey†, and Morrard‡, and was advocated by a preponderating majority of British and foreign surgeons, and is generally preferred at present. Its advocates were Heister, Côme, Lecat, Sharpe, Lucas, Lassus, Schreger, Bonn, Richter, Chopart, Desault, Sabatier, Langinbeck, Bell, Pelletan, Schimdt, Nauche, Home, Abernethy, Boyer, Ducamp, &c. These contend that the only danger that can arise from this operation is infiltration of urine, whereas this may more likely happen after the recto-vesical puncture, when it will be aggravated by the presence of the fecal matter. It is also much more probable that the peritoneum may be wounded in the lower than in the upper operation. Besides the puncture is made in the former case through that portion of the bladder which is most irritated, spasmodically contracted, and often inflamed by the urine. The necessity of removing the canula when the bowels are evacuated, is a serious inconvenience. It has been urged against the hypogastric operation that there is danger of urinous infiltration in the abdominal cavity and parietes, but this scarcely ever happens unless by great negligence of the surgeon.

Puncture of the bladder is often rendered unnecessary by the occurrence of abscesses and fistulæ in the perinæum, or in the urethra behind the stricture. Daily experience attests the truth of this statement. It is therefore necessary to describe the pathology and treatment of such diseases.

* Enchiridium Anatomicum, &c.

† Plures, 1658.

‡ Traité de la Lithotomie.

§ Traité des Operations de Chirurgie, 1720.

|| Pouteau, Melanges de Chirurgie, Lyons, 1760.—Klosa diss. de Paracent. visicæ, &c. Genæ, 1791.

* Memoirs of the Medical Society of London, v. 1, p. 17.

† Annalen der Gesammten Medicin von Hecker.

‡ Traité de la Lithotomie, 1810.

Abscesses and Fistulæ in Perineo.—Abscesses in the perinæum may be caused by external injury, or by the infiltration of urine into the cellular tissue and fat of the perinæum. When stricture renders the urethra impervious or nearly so, the patient strains violently when he has occasion to evacuate the bladder, and the consequence of such violent and repeated efforts will be irritation, inflammation of the urethra behind the stricture, and distention or rupture of the mucous membrane of the canal. This membrane becomes distended, and may admit the transudation of a few drops of urine, which escape into the subjacent cellular tissue, and excite inflammation and abscess. These effects will of course be more sudden and extensive when there is rupture of the membrane. In some cases the progress of the abscess is slow, in others rapid, and speedily terminating in gangrene. In a former page, I alluded to the dangers of urinary abscess, and stated that the infiltration might extend to the scrotum, abdominal parietes, and inferior extremities. A friend of mine has mentioned two such cases to me; and there is another recorded by Segal. Abscesses may be caused by irritation of the urethra independently of stricture*, or of the presence of a foreign body in the canal.

Ulceration or rupture of the urethra most commonly occurs in the bulbous or membranous portion, because stricture most commonly exists in the curvature of the canal, so that the portion between the curvature and neck of the bladder necessarily suffers. The rupture usually occurs in the inferior part of the membranous portion.

The abscess may be filled with pus only, or contain this and a quantity of urine. It may occur at any period of stricture when the urethra is irritable, but it most frequently happens in the advanced stage of the disease. The presence of an irritating fluid such as urine, in parts not designed to be in contact with it, will speedily excite violent inflammation and sloughings. When the disease is not treated in its first stage, we find that the skin assumes a darker livid colour, rapidly sloughs, and an exceedingly fetid fluid, composed of pus, urine, and sloughy cellular membrane is discharged. If the infiltration and sloughing be allowed to extend to the scrotum, groins, abdominal, thoracic, or femoral parietes, death will speedily take place.

In most cases, the extension of the inflammation is rapid, though sometimes the tumefaction of the perinæum is slight; but in general it is considerable, and there is little urine expelled by the urethra.

The indication of *treatment* is to give an exit to the pus, or urine, as soon as possible, by a free incision, as it would be almost impossible to expect resolution while the exciting cause of inflammation remains.

It has, however, happened, but very rarely. In some cases it will be necessary to plunge an abscess lancet to the depth of its edge; in others a slight puncture will be sufficient, when the parietes are thin. After the abscess is opened, a large poultice should be applied, and the patient of course confined to bed. The abscess should never be allowed to burst spontaneously, because then the parietes would be so thinned, the cellular tissues absorbed, that the opening could not heal. When an early opening is made, the skin and cellular tissue are divided; these tumefy or inflame, and the wound is closed by the first intention. Nevertheless, there are many cases in which a timely incision has been made, and in which the repeated irritation produced by the urine, has caused fistulæ, in despite of all of our efforts.

Fistulæ in Perineo.—It is obvious, that when the passage of the urine through the urethra is completely prevented, and an opening or openings existing in the perinæum, that the fluid will be forced through the latter. The obstacle to the passage of the urine is the cause of abscesses and fistulæ. These apertures may be situated in any part of the perinæum, around the anus, in the nates, and even, though rarely, in the groins. Nature in some rare instances makes an attempt to obviate the inconvenience of stricture, by establishing a fistula under or by the side of the stricture, and extending it in front of the obstacle. But no surgeon would be justified to wait for such an occurrence.

The indication of *treatment* is evidently to remove the stricture or any foreign body which obstructs the flow of urine through the urethra. According as the canal of the urethra is enlarged, fistulæ become closed. The practice usually employed is, to pass a catheter, however small, into the bladder and to allow it to remain there for some days, more especially if there was difficulty in introducing it in the first instance. Some remove it at intervals. The size of the instrument should be increased in proportion to the dilatation of the urethra. When the urine flows along the sides of the catheter, it is manifest that the size of the instrument ought to be increased. Difficulty is often met with in re-introducing the catheter, and in such cases, I apprehend it would be the best practice to leave the instrument in the bladder as long as it can be borne without irritation. Some surgeons advise it to be left in the organ, until the fistulæ have cicatrized, but this I consider highly objectionable. Others proposed to incise the fistulæ in perineo, but this is seldom done at present, unless the stricture be situated in the portion of the urethra correspondent to that part. It is true that an abscess may form a sinus in the perinæum independently of stricture, and then incision may be practised.

* Macilwain on Strictures, 1829. P. 147.

It often happens during the treatment of fistula, that inflammation of the testicle, and hydrocele, supervene. Both these are excited by the irritation caused by repeated catheterism, for I have already observed that an irritable condition of the urethra may produce these and various other sympathetic affections. If we keep this fact in view we can easily understand the reason why leeches and cold applications rarely succeed in removing the first disease, as its cause is in urethra. The treatment of orchitis or hernia humoralis is foreign to the title of this essay, and therefore I shall not comment upon it. So also is that of hydrocele, and I shall only venture one remark, and that is, that we should relieve the urgent symptoms of urinary abscess or fistulae, and remove the stricture of the urethra, before we attend to that minor and harmless disease. Having described the pathology and treatment of permanent stricture, I shall proceed to notice those forms of the disease denominated spasmodic and inflammatory.

Spasmodic and Inflammatory Stricture.—If spasmodic stricture is caused by a sudden contraction of a part or the whole of the urethra which prevents the flow of urine. It may be induced by any cause which irritates the canal, or it may be sympathetically by irritation in remote organs. It often occurs in nervous irritable persons, and will be induced by the passage of a bougie or catheter into the urethra, or by irritation in the digestive organs. Those who suffer from indigestion and are of a nervous temperament, may be suddenly affected with spasmodic stricture after the ingestion of certain high seasoned foods, subacid liquors, or exposure to cold. In some cases the acrimony of the urine will cause it.

Much diversity of opinion exists as regards the pathology of this kind of stricture. Some contend that it can only occur in that portion of the urethra which is surrounded by the accelerator urinæ, ejaculator seminis, compressor prostatae, and levator animusculæ; while others contend that any part of the urethra may be spasmodically contracted. According to the researches of Mr. Baur the whole urethra has a muscular covering*; but this is denied by the majority of anatomists and surgeons. It is admitted by all that the mucous membrane of urethra possesses a contractile power in a high degree, and this is proved by the fact that the canal contracts in some persons on the passage of an instrument. It is also obvious that during urethritis, before a permanent stricture is formed, the inflammatory canal will contract violently on the passage of the urine. Mr. Hunter held that when there was a permanent stricture accompanied by spasm, the disease was a mixed one, while others have termed it *inflammatory stricture*.

The diagnosis between spasmodic and permanent stricture is easily formed—in the first the patient is seized suddenly with difficult micturition, and he is speedily relieved; in the second the stream of urine has been gradually diminishing for a longer or shorter period. The first voids his urine, in general, in a full stream, but having drank freely of acid wines, champagne, sherry, &c., and passed from a warm into a cold apartment, or into the open air in cold damp weather, he finds he cannot pass a drop of urine. Confinement to bed, or warm fomentations and sedatives, such as the compound powder of ipecacuan, will relieve him in a very short time, or enable us to introduce a catheter. The hip-bath and frictions along the urethra and perinæum, with an ointment composed of two drachms of extract of belladonna and an ounce of lard, will soon produce relief. The free use of camphor with hyosciamus, is productive of immediate benefit. But it often happens that spasmodic and permanent stricture co-exist at the same time, and, according to some, the former precedes the latter in most cases. A permanent stricture is often affected spasmodically.

The urethra may be rendered impervious by acute or chronic inflammation, or by spasm. In acute urethritis there may be such engorgement of the mucous membrane as to stop up the canal, or there may be a viscid mucous secreted, which will render the passage impervious. The irritation in either case may extend to the vicinal muscles, and cause spasmodic stricture. Mental emotion may cause this complaint. Rousseau was affected with repeated retention of urine from an early age: he supposed he had calculus in the bladder. Merand made several unsuccessful attempts to introduce a catheter, and Frère Côme at length succeeded. There was no stone. The patient's fears vanished, and he seldom suffered from his complaint. His urethra was found in a natural condition after death.

The best treatment of retention of urine caused by spasmodic stricture, consists in putting the patient to bed, ordering a sedative clyster containing opium or belladonna, warm fomentation to the pubes and perinæum, and leeching the latter, when other means have failed. This plan generally succeeds; but, should retention continue, catheterism or puncturing the bladder or urethra may become necessary. Before we resort to catheterism the patient may be placed in a warm bath and bled from the arm. A catgut bougie is preferable in this case. It should be passed down to the stricture or obstruction, and kept there. It soon absorbs moisture and enlarges, so as to dilate the urethra, the patient experiences an urgent desire to evacuate the bladder, the instrument is withdrawn, and the urine flows freely. Should this fail, a silve catheter may be tried, and depletion, tartarized an-

* Home on Stricture, vol. iii, p. 26.

timony, or tobacco clyster administered. In former times forced catheterism was performed, but this is never done at present. Desault, Chopart, and Ducamp, seldom failed to pass a catheter, and seemed to think puncturing the bladder unnecessary. But the dangers of forced catheterism, as already described, very clearly demonstrate that this proceeding is fraught with the greatest danger. Mr. Brodie has however recently readvised it in retention of urine from enlargement of the prostate gland*. Delpech condemns this practice, and states that he has known death follow in a short time. Mr. Brodie, however, refers to a preparation in the Hunterian Museum, with a false passage through the prostate, the urethra being closed, and the patient survived a year afterwards. Puncturing the bladder is seldom necessary in either spasmodic or permanent stricture; but cases do rarely occur in which it is indispensable. When the urethra is considered to be plugged with viscid mucus, M. Mussat throws in an injection, and in several cases dislodged the cause of obstruction†.

The passage of the urine may be obstructed by other causes besides stricture, such as disease of the prostate gland, or the presence of foreign bodies in the urethra. I shall now proceed to describe these causes, and also some other diseases of the urethra.

Diseases of the Prostate Gland.—This gland, like all other parts of the body, is liable to inflammation and its consequences. It might appear at a first view, that it can rarely be affected on account of its position; but it may become diseased from its connexion with the bladder, urethra, ejaculatory ducts, and from its proximity to the anus.

Prostatitis may be excited by excessive venery or solitary abuses, and most especially during the presence of gonorrhœa, by urethritis, orchitis, cystitis, hæmorrhoids, inflammation of the perinæum or anus, urinary calculi, excessive equitation, and catheterism. The disease commences with a sense of weight, tension, heat, and pain in the perinæum, which extends towards the urethra, neck of the bladder, and anus. There is more or less difficulty in evacuating the bladder, or complete retention of urine. These sensations are aggravated on each attempt to empty the bladder or rectum.

There is more pain in retention of urine in this disease than in ordinary cases, on account of the pressure of the fluid against the inflamed prostate. There is violent tenesmus, accompanied by a constant desire to void the urine. There is a sense of fullness in the perinæum and rectum, and the prostate is painful on pressure, when touched with the finger introduced into the rectum. These symptoms are speedily attended with

rigors, and when suppuration is about to take place. On attempting to pass urine, a few drops only escape, and the contractions of the abdominal muscles and diaphragm press the neck of the bladder against the tumefied prostate, and completely close the urethra. The jet of urine is small, and sometimes there is complete retention. The local symptoms soon derange the constitution. The pulse becomes frequent, the skin hot, the tongue furred, and high fever is induced. Acute inflammation of the prostate often succeeds sudden suppression of gonorrhœa, continues for seven or eight days, terminates most frequently by resolution, sometimes by suppuration, but very rarely by gangrene. It often becomes chronic. When the disease terminates by suppuration, it continues longer than the period now mentioned, there are rigors and fever. According as the abscess advances, the perinæum becomes tender, tumefied, and thinner than usual. An obscure sense of fluctuation may be perceived in some instances. The suppuration does not usually occur in the gland, but in its envelope and the subjacent cellular tissue. Sometimes there are many small abscesses, at other times there is one large collection of pus. The abscess usually points to the external surface of the gland, and may burst into the bladder, urethra, rectum, or perinæum. Mr. Brodie describes numerous cases of this disease in his valuable lectures already quoted.

The indications of *treatment* are the following: first, to arrest inflammation by the most powerful antiphlogistic measures; secondly, to prevent suppuration. All authors agree as to the propriety of employing the most energetic antiphlogistic measures. (Morgagni, Petit, Chopart, Bell, Home, Brodie, Cooper, Phillips, &c.) General bleeding should precede all other means, and be followed by leeching the perinæum, cupping the loins and sacrum, partial baths, fomentations, purgation, and then sedative enemata. Absolute repose is to be enjoined in the horizontal position, the thighs should be separated, the pelvis raised so as to avoid compression. The diet should of course be low, and the liquid ingesta barely sufficient to allay thirst. Mr. Brodie advises the bowels to be opened with calomel and senna, and then a clyster composed of two ounces of starch, and a half or a drachm of laudanum. This last to be repeated every night, or even oftener, the bowels being opened by mild aperients.

During the use of all these remedies, we must not forget the necessity of evacuating the bladder, should the patient be unable to effect it by his own efforts. Desault and Boyer advised a large gum elastic catheter for this purpose; Mr. Brodie recommends a very small one without a stilette*, while Sir E.

* Lectures on Diseases of the Urinary Organs, &c. 1833.

† Leçons sur les Retentions d'Urine, 1832.

* Lectures, 1833

Home and M. Lisfranc prefersounds. When both instruments have been tried without success, we must employ the other means advised for retention of urine, and if these do not afford relief, the only thing to be done is to puncture the bladder.

When the symptoms indicate suppuration, Sir B. Brodie advises us to plunge a lancet up to the shoulders, or even to the handle, fearlessly; if there is matter, it will escape, and should there be none, the condition of the patient will be improved by the loss of blood, and the removal of the tension of the soft parts*.

When an abscess bursts into the urethra, Sir B. Brodie advises, in some cases, the catheter to be constantly retained in the bladder till the affected part has healed; but he prefers the occasional introduction of the instrument. There are, he says, cases in which the catheter excites so much irritation that it must be entirely omitted. According to his experience, most persons are cured by this plan, the general health being attended to at the same time; but some die in consequence of disease of the kidney. He has used cubebs in the dose of twenty or thirty grains three times a day, under the impression of its acting as a gentle stimulant on the affected part, somewhat similar to the action of Ward's paste in abscesses, fistulæ, and ulcers of the rectum.

—o—

Reviews.

Stammering considered with reference to its Cure, by the application of those Laws which regulate Utterance; in a Letter addressed to Dr. Birkbeck, F.G.S., &c. By Richard Cull. 8vo. pp. 50. London: Renshaw. 1835.

On perusing this pamphlet, we were struck with astonishment at the fact that the author of it has most carefully avoided the slightest notice of the physiology of voice, or the description of his method of treating stammering. He mentions some cases which he improved, others which he cured, but he has forgotten to state his plan of treatment. While he very dogmatically condemns the practice of others, he withholds mention of his own; and after the perusal of his production, the reader is as wise as before he opened it. The work is written in a quaint, bombastic, and puzzle-the-vulgar sort of style, which no general, and indeed few professional readers can comprehend. It has one great feature, however; the cures

and improvements of patients are very intelligible to all concerned.

Had the author given the latest and best physiological views of the voice, as he ought to have done, then described its pathology, and lastly the treatment he employed, the profession and the public might be indebted to him. It may be said that this mode, which, by the by, is the only scientific one, pursued by the monographic writers in all civilized countries, would oblige the author to publish a volume instead of a pamphlet; but suppose it did, might he not, we beg to inquire, have done himself, the profession, and the public, very great service? We answer, he might have done so most undoubtedly; for such a work is still a desideratum. We should be the first to applaud such a production, though we cannot but censure the impotent and good-for-nothing tract before us. Let the author only follow our advice, and if he have well observed the disorders of which he treats, he may, by a systematic treatise, acquire both fame and wealth. Let him publish a treatise *ex professo* on the subject, and he will find a hiatus that has long existed in British medicine.

—o—

A Practical Treatise on Diseases of the Teeth, in which the Origin and Nature of Decay are explained, and the means of Prevention pointed out. By William Robertson; with Plates, illustrating the Author's views. 8vo. pp. 158. London: Longman and Co.; and Belcher and Son, Birmingham. 1835.

An Essay on Artificial Teeth, Obturators, and Palates, with the Principles of their Construction and Application. Illustrated by Twenty-six Cases and Twenty Plates. By Leonard Koecker, Surgeon Dentist, Doctor in Medicine, and Surgeon, &c. 8vo. London: Highley. 1835.

CHANCE has thrown two works on diseases of the teeth before us. We have perused both with attention, and find them as different as the antipodes. Dental surgery is as yet a kind of no man's land in this kingdom. It will be said, we have the works of Hunter, Blake, Fox, Bell, and a hundred others; but we reply, every one of them is unsatisfactory. Even Hunter has not understood the pathology of the teeth, and much less his successors.

* Lectures, 1833.

Mr. Robertson, like hundreds of his predecessors, declares that he has untied the gordian knot. His predecessors and rivals have repeatedly cut it. We shall carefully examine his discovery when time allows. It would be fortunate for humanity if he succeeded. We use the subjunctive mood, though he shall employ the indicative. We know he is a highly respectable surgeon, not surgeon-dentist; and we shall have much pleasure in allowing him to speak in *propria persona*.

We have had so many treatises on the teeth, that we have often exclaimed, "Jam satis." We have seen some ascribing all disorders and diseases to the teeth, others professing magic skill in dental surgery, and all failing to afford relief except by the painful, we have reason to say horrible operation of extraction. Charms, amulets, and nostrums do not relieve tooth-ache; the terrific operation of extraction, which, sound-toothed reader, is as if the dentist was twisting off your head, is the sovereign remedy.

He has attempted to enlighten the professional and non-professional. He thinks he has untied, not cut the gordian knot. Our readers shall judge for themselves on a future occasion. In our opinion, he is a judicious and excellent dentist. We think, however, that some of his conclusions are untenable.

Mr. Koecker may be an excellent surgeon-dentist and a learned doctor in medicine and surgery, but he has frightened us with his illustrations, "by twenty-six cases and twenty-one plates." Our numerous readers know full well that we abound with the milk of human kindness, that we could not injure a blue bottle fly; nevertheless, we are very much disposed to quarrel with our author. His work, in our opinion, is written *ad captandum vulgus*. He appears to us a mechanical dentist. He is evidently well acquainted with the management of artificial teeth, obturators, and palates; but his twenty-six cases, most of which are illustrated by a plate, are only calculated to frighten the afflicted. He informs us that he is a foreigner: the very reason that we feel ourselves proud to treat him with courtesy. But when he, a doctor in medicine and surgery, according to his

own statement, publishes a work purely mechanical, and not scientific, we have just reason to criticise it, as our contemporaries in foreign nations are, in the aggregate, just as learned, scientific, and experienced as ourselves. In fine, the work we censure, will be very useful to illiterate, but we doubt, to scientific dentists.

—o—

Formulary for the Preparation and Employment of several new Remedies, such as Morphine, &c. &c. Translated from the Eighth Edition of M. Magendie, with an Appendix.
By Charles Wilson Gregory, M. D. 8vo.
pp. 225. London: E. Cox. 1835.

THIS is a literal translation of M. Magendie's celebrated Formulary, and a rival of that by Dr. Gully, already noticed in this Journal. Our readers will naturally inquire the reason of two versions of the same work. We really cannot inform them. We cannot affirm that there was a rivalry between the translators or the publishers, though we have heard, but can offer no opinion on the subject, that there was between the latter. We know, however, that Dr. Gully was not aware of this, and further, that he would never interfere between such opponents. He was requested to give a translation, and he executed one with his wonted ability, and added many valuable notes and an appendix. It is true he pruned the turgid style of the original, and for this he is indirectly attacked by Dr. Gregory. After all, this is a matter of taste. Some will prefer a knowledge of all that is useful in the original work, and others will desire a literal translation. It is fortunate that both classes of readers may be gratified on different terms. Dr. Gully has added many valuable notes, Dr. Gregory none. The former has given an appendix; the latter has selected the same subjects for another, and given verbal repetitions of some of the sentences of his predecessor. This is unfair, without the use of those trifling, insignificant, little, and crooked marks, vulgarly called inverted commas.

Dr. Gregory has executed his translation with accuracy and ability.

—o—

The Christian Physician and Anthropological Magazine. No. I. Published Monthly.

By E. Palmer.

A NEW periodical has issued from the press. We were struck with the title, "The Christian Physician;" we exclaimed, every learned physician is and must be a Christian; but when we saw, "and Anthropological Magazine," we hailed a classic brother as the sponsor. We delight in the euphony and grand eloquence of the ancient Athenians; "anthropological," relating to man, reminds us of another equally significant term, "panto-philological." Our worthy contemporaries of the Dublin Medical Journal may stare at this, and leave it to us to admire it. But we must allow the Anthropologist to come before our readers. The following is his address.

"Man, the most noble of the terrestrial works produced by the Divine Mind, is so made as to be capable of enjoying the greatest happiness and enduring the greatest misery.

"To enjoy happiness he must possess *Health*; to avoid misery he must be free from *Disease*.

"*Health* is threefold; namely, *bodily health*, *intellectual health*, and *moral health*.

"*Disease* is threefold; namely, *bodily disease*, needing the physician; *intellectual disease*, needing the philosophic physician; and *moral disease*, needing the Christian physician.

"The Christian physician embraces the philosophic physician, for true philosophy is a part of the wisdom of God, which, whether manifested in nature or in revelation, comes under the attention of the Christian physician.

"Bodily disease manifests itself by *symptoms*; intellectual disease by *error*; and moral disease by *vice*.

"The objects of *cure* before the Christian physician are, therefore, two—*error* and *vice*; and, in respect to bodily disease, the object will be *prevention*.

"It is evident, moreover, that man's avoidance of *bodily disease* is to be effected only by attention to the laws of the *natural creation*, every violation of these laws being, from the unbending and invariable nature of the laws themselves, attended with punishment, either immediate or remote. Man must, therefore, before he can be free from bodily disease, become acquainted with the *laws of the creation*, viewed in reference to his *body*; and, becoming acquainted, must act upon his knowledge. To communicate this knowledge is one of the objects of the promoters of the Anthropological Magazine, and will cause them to introduce into its pages Physiological, Chemical, and Natural History facts.

"It is equally evident, that man can never escape *error* unless he knows those truths which refer to his *intellectual condition*; in other words, unless he is acquainted with the various laws which regulate the perception and the appropriation of truth by him as an intellectual being. To develop these laws, the Anthropological Magazine will contain, each month, a *Lecture on Phrenology*, and Essays on other matters connected with the Science of *Mind*.

"It is not less true, that man can never be freed from vice unless he knows, and acts upon his knowledge of, those laws which constitute the relationship in which he is placed to his Creator, as the *Moral Governor of the Universe*, and to his *Fellow-man*, placed like himself under the same government. The Anthropological Magazine was intended for the development of these laws.

"Any one beholding the world at the present moment will perceive two things; first, that there is much error and much vice, and that men are anxiously looking forward to a better state. The waters of the human mind have been stirred previously to the healing.

"In regard to the vice which prevails in the world, and in regard to its removal, *Christianity* will be the guide; the reason of so esteeming Christianity being, that it affords the only satisfactory acquaintance with the laws regulating the *Moral government* of the universe; and therefore, while the *volume of Revelation* will be made use of to benefit man's *internal* and *eternal* condition, the *volume of Nature* will be used to benefit man's *external* and *terrestrial* condition. Thus we shall read the two *Books* God has given for our good.

"To effect these objects, the pages of this Magazine will be open to Essays, Extracts, Lectures, and Original Communications from Correspondents, no matter what may be the differences of opinion, if these differences be stated in a proper spirit; the conductors of this Magazine holding with Milton: 'And though all the winds of doctrine were let loose to play upon the earth, so truth be in the field, we do injuriously, by licensing and prohibiting, to misdoubt her strength: Let her and falsehood grapple, who ever knew truth put to the worse in a free and open encounter?'

"It is trusted, that these remarks will explain the titles by which the work will be known; titles, which however unusual, are, it cannot be denied, expressive. Know thyself, is a beautiful, a noble maxim. The realization of it is still more noble. Then man has a chance of attaining to that dignity, which the name belonging to him, *ανθρωπος*, *anthropos*, indicates, namely, a *turner upwards of his eyes*. The aim of the writers of the Magazine being this, what title better than the Anthropological Magazine could be selected?"

The London Medical

AND

Surgical Journal.*Saturday, September 19th, 1835.*DEFICIENCY OF "ESPRIT DU CORPS"
IN THE MEDICAL PROFESSION.

WE would call the attention of our readers to the letter of "A Non-medical," in another part of this day's journal. If the want of a professional freemasonry, of an "esprit du corps," among medical men, be sufficiently evident to attract the observation of those unconnected with the profession, how keenly must that want be felt by its actual members! It is felt, and but too amply manifested, in the sneaking artifices to which medical men are obliged to resort to obtain a subsistence; in the uncertainty of their remuneration; in the cavalier treatment they often experience from those they relieve; and in a thousand other degradations intolerable to men who have a particle of respect for themselves or for their calling.

In the metropolis this want of professional sympathy is evinced in the overbearing insolence of "first surgeons" and "senior physicians," as contrasted with the parasitical fawning of "assistant surgeons" and "junior physicians;" in the servile acquiescence of the surgeon-apothecary who resides in St. James's parish; in the dictum of the Sir Henries or Sir Benjamins who preside in the regions about St. James's Palace; in the *condescending* tone of the rhubarb dispenser who dates from St. George's, Hanover Square, towards the lean apothecary whose poverty constrains his will to the vending of an halfpenny-worth of jalap in St. George's in the East.

While the members of the *higher* professional circles, as they call themselves—grant us patience!—while these humbugs, we say, make use of the well bred insinuation or slanderous whisper to poison each other's reputation, the

smaller fry hiss at and bespatter one another with a virulence at once ridiculous and deplorable. We venture to say that no one practitioner is without some thorn in his side, placed there by the kind offices of a professional brother; in short the "esprit du corps" is wanting in the metropolitan faculty; the individuals composing it live *by* rather than *for* each other.

Nor is this fratricidal propensity confined to the metropolis: in the large provincial towns each member of the profession may be found at his brother's throat, or else the entire number is divided into two sects filled with envy, hatred, malice, and all uncharitableness towards each other. Such is the case in Liverpool, for instance, where national politics are obtruded into the affairs of a profession to which of all others they have least relation, and where one party in the profession, resting their hopes of advancement on the Whig, and the other on the Tory section of the purse-proud merchants, have enabled the two between them to establish a complete tyranny over the medical men; hence the latter are treated as tradesmen, the physician is obliged to send in his *bill*, the surgeon compelled to take off a discount, and while the payment of both is miserably diminutive, it is the last that enters into the head of the cotton lord; *divide et impera* has succeeded admirably at Liverpool. There too the same discord for a long time obstructed the progress of one whose name is to Liverpool, in medical science, what Roscoe's is in general literature and the fine arts—an ornament, a specimen of the aristocracy of intellect shining amid the mobocracy of wealth: we allude to Dr. Carson; latterly, since the Whig party has weighed down the opposite one in the balance of political opinion, his merits have become suddenly developed, and tardy justice has been done to his worth by his occupation of the most extensive practice in the place. What miserable absurd-

dity! when it can be shown that the physical organization of men is influenced by their political opinions—when it can be shown that morbid causes or therapeutical agents have a different operation on Whigs, Tories, and Radicals—it will then be time enough to estimate the qualifications of a physician by the peculiarities of his political creed.

Analogous instances might doubtless be adduced with reference to many other provincial towns. Even in villages where it is proverbial that *one* solicitor starves while *two* flourish, if there should happen to be two “doctors,” they are incessantly occupied, like German doubles, in working each other’s destruction. The reason of this, we suppose to be, that a man’s *person* cannot be partitioned between the two doctors, who have therefore a hard tug for it, with

“a deal of swearing

And nauseous words past mentioning or bearing;”

while on the other hand his *property* may be equitably divided between the two lawyers, who, cheerfully acquiescing in so pleasant an arrangement, preserve their mutual esteem.

We have entered into these illustrations of the general remark made by our correspondent, in order to render more striking to our brethren one great cause of their not attaining that status, and weight in the community, to which their arduous labours for its benefit so amply entitle them.

We do not however contemplate any change for the better as likely to arise immediately, even from the fullest conviction of the reality of such a cause. No improvement can be anticipated so long as the profession is frittered down into foolish and invidious grades, depending rather on the amount of money expended, than on the quantum of knowledge acquired—so long as the physician only looks wise, the surgeon only *cuts*, and the apothecary only drenches. The thing wanted is *One*

Faculty, qualifying *one* species of medical practitioner, who will not look so wise but be wiser, who will cure more and cut less, and not drench at all.

—o—

WHO INTRODUCED INTO THE PRACTICE OF SURGERY, THE SMALL LIGATURE OF ARTERIES?

To the Editor of the London Medical and Surgical Journal.

SIR—It is truly gratifying to observe the attention with which foreigners regard discoveries in science, and their laudable anxiety to render justice to the merits of all who have in any degree advanced the powers of the healing art. In this generous course, the author of the *Surgical Dictionary*, Samuel Cooper, Esq., justly claims an honourable and distinguished place among our countrymen at one time*. Monsieur Maligne, as translated by Greville Jones, Esq., ascribes the cutting off the two ends of the ligatures employed in securing divided arteries, and closing the wounds over them, to me. In this he is mistaken, as the proposition and practice belong to Mr. Laurence. What I am anxious to state is, that the merit of introducing the use of the single small round silk ligature is due to me alone, and to which, neither Dr. Jones nor Mr. Laurence, nor any one else can justly lay claim, as that great improvement in modern surgery was established by me in the Royal Naval Hospital at Plymouth, while one of the principal surgeons thereof, in the years 1804 and 1805, and consequently before the book of Dr. Jones was published.

Dr. Jones’s experiments extended to the brute creation alone, and he does not recommend a small round silk ligature, but he simply advises the use of a round one. Now, as much foreign matter in the form of ligature, and equally injurious, may be introduced in a round as a flat form, it was the diminution of irritation by the reduction of the quantum of extraneous matter, that led to my adoption of the small round ligature. There need be no dread of dividing the external coat of the artery by a small ligature, which practice is applicable to all arteries, whatever their dimensions may be. No force of ligature will divide the external coat of the artery, unless the surgeon sits down under the want of that information which he ought to possess. Certainly we have seen some operate who were never intended for surgeons, and whose operations, when finished, were by no means remarkable or inviting examples of the pure *conservative* system. There is another point of great importance, to which I call the atten-

* We rejoice in adding our testimony to the above merited eulogium.—Ep.

tion of the profession, in my essay on the ligature of arteries secondary hemorrhage; and that was the arrangement in the wounds after operations, by gently drawing them out, having cut off one half on a line with the divided artery, which I lament to say is too little attended to. Such a distribution of the ligatures in all operations is of as much importance towards the attainment of success, as the small ligature itself: indeed, I may here remark that it is of little consequence, and the observation is founded on experience, whether the ligature is flat or round, provided it is small. Should torsion succeed in arresting hemorrhage, it will be a great accession to the resources of surgery; but of this I entertain doubt, as it inflicts much violence on the artery, which will conduce to inflammation and sloughing, and consequently to secondary hemorrhage. In certain constitutions and climates it may produce locked jaw, and it appears not likely to be successful in arresting hemorrhage from deep seated wounds.

I have the honour to be, Sir,

Your most obedient, humble servant,

JAMES VEITCH, M.D.,
Hospital Surgeon, R. N.; Member of the
Royal College of Physicians, London,
&c. &c.

26, Cadogan Place, September 10, 1835.

We have been informed by those who have witnessed the operations of Dr. Veitch, that his previous arrangements were marked by circumspection and regard to the feelings of his patient, and that these operations were executed with a degree of coolness, dexterity, and self-resource when difficulty occurred, equalled by few, and surpassed by none. Dr. V., in our opinion, is to be regarded not only as the discoverer of the single ligature, but as having laid down the safest method of amputating at the hip joint.—ED.

—o—

Summary of Orfila's Observations on the changes which occur in the Tissues of Dead Bodies after Interment. Appended to Sédillot's Manuel de Médecine Légale. Translated from the French, for this Journal.

(Continued from p. 181.)

Nature and duration of the Disease of which the Individual has died.—In general, putrefaction proceeds more rapidly in the bodies of those who have died of an acute than of those who have died of a chronic disease that has attenuated the body, which is sufficiently explained by the larger proportion of the fluids to the solids in the former case. It would be a curious inquiry to ascertain, by numerous observations, what in-

fluence each group of acute diseases exercises on putrefaction; for this purpose it would be necessary to inter, under circumstances otherwise similar, the bodies of persons who had died of encephalitis, pneumonia, gastro-enteritis, &c.; but this inquiry is beset with difficulties, the other causes which accelerate putrefaction being too numerous and too variable to be excluded from consideration. However this may be, we know that, *cæteris paribus*, putrefaction takes place more slowly in the body of an individual who has died of hemorrhage than of one in whom the vessels are distended with blood, as in some cases of asphyxia; that anasarctous bodies putrefy much faster on that account; that the bodies of those who have died of small-pox or any other pustular disease of the skin are decomposed with peculiar rapidity; finally, that parts in which blood has been accumulated by irritation or inflammation putrefy very readily. It is also probable that the evident change which occurs in the fluids, and even in the solids, in some acute disorders, is one of the causes which accelerate putrefaction.

Phenomena which have immediately preceded Death.—The progress of putrefaction will be quicker or slower according as death has been sudden or preceded by an illness of some days' duration, according as the mortal struggle has been long or short, and according as death has been caused by the action of a virus, which produces a change in the blood, or otherwise: the aggregate effect of these influences cannot however be estimated with any degree of precision.

Period of Inhumation.—Since putrefaction proceeds more rapidly in the air than in any other medium, it is evident, that if it have not commenced when the body is interred it will not take place so speedily as if the burial had been deferred till several hours or several days after signs of decomposition have appeared: it may even happen in summer, that a body which has not been interred till five or six days after death, and already in an advanced stage of putrefaction, may be as much decayed at the end of a month, as another body interred twenty or twenty-four hours after death is found to be at the end of seven or eight months. We thus perceive the influence of a number of secondary causes operating on the body from

the period of death to that at which putrefaction begins; as the latter never occurs till the cadaveric rigidity has ceased, it is evident that the duration of this rigidity, which is far from being the same in all bodies, must have an influence on the progress of putrefaction; this is proved by the fact, that bodies which have lost their rigidity before interment offer signs of putrefaction, while it is otherwise with those which preserve a remarkable state of rigidity. But, though it be true that the duration of rigidity is a circumstance to be taken into consideration, we know that this duration is in a great measure dependent upon the temperature, and that rigidity usually takes place only in parts that have become cold; hence the progress of putrefaction varies according as the body is enveloped in woollen or linen cloth, or is in a state of nudity; according as it has lain in a cold or a heated apartment.

Deposition of the Eggs of certain Insects.—

In summer, while dead bodies are exposed to the air previous to inhumation, certain flies lay their eggs on the surface of the skin, and these being afterwards hatched in the coffin, give origin to more flies, which may multiply ad infinitum. The insects which feed especially on dead bodies and deposit eggs on their surface are the following:—*musca tachina simplex*, of Meigen; *vomitioria, cæsaræa, domestica, carnaria, furcata; scatophaga stercoria; thyreophora cynophila; anthrenus; dermestes; hister; necrophorus; sylpha; plenus fur, imperialis; oxyporus, lathrobium; pæderus; stenus; oxytelus; tachinus; aleochara; noterus; scarites; harpalus; julus lepisma*. But it is found that for some time after death the flies do not collect round dead bodies; that still later they only hover round them, and that it is not till putrefaction is further advanced that they settle upon them and deposit their eggs; soon after larvæ are seen in greater or smaller number in different parts. If two bodies be interred at the same time, one of which has its surface covered with thousands of eggs, while the other is free from them, it is evident that, *cæteris paribus*, the former will putrefy much the sooner, because it is the nature of the larvæ to destroy our tissues for their own nutrition. The influence which insects exert on the progress of pu-

trefaction, by the deposition of their eggs, is then not to be denied.

It may here be asked, how do these larvæ, chrysales, and insects, originate at all seasons of the year, and especially the *musca tachina simplex*, of Meigen, which we have so often found on opening bodies that have been buried at the depth of from four to six feet for several months or even years? This phenomenon cannot be accounted for from a few of these flies having laid their eggs on the surface of the body, because it is observed in bodies interred during the winter, when there are no flies; neither can it be supposed that these insects, which are soft and feeble, can make their way out of the earth from so great a depth, and go forth to propagate their species: again, it is equally improbable that the insects of the air can penetrate the earth to make their way to the corpse. If we only found larvæ, or chrysales, it might be supposed that these had been in a state of torpor or hybernation, which had ceased under favourable circumstances; but we find larvæ, chrysales, and flies altogether, and many of the chrysales have yielded perfect insects. What, then, can be the origin of these races of animals? We must confess our inability to solve this question.

Nature of the Soil.—This will be treated of hereafter.

(To be continued.)

—o—

DINNER TO THE ANATOMICAL TEACHERS AT BATH.

THE anatomical class of Mr. Spender and Dr. Cowan gave a dinner to those gentlemen on Friday the 11th inst., at the Eve's Hotel, Queen-square, Bath. The following address, prepared by the pupils, was delivered upon the occasion.

MR. SPENDER AND DR. COWAN;

Gentlemen—We need scarcely assure you of the gratification we feel in addressing ourselves to gentlemen whose kind attention and solicitude for our welfare and success, deservedly merit our admiration and esteem. We are assembled this evening, prompted by a desire of expressing our gratitude for the kindness you have conferred upon us in delivering that course of lectures, to which our attention has been lately directed, during which time, that kindness has been continually increased, by your unremitting anxiety that we should acquire a competent knowledge of the subject, upon which you have treated with a

perspicuity and minuteness that was so calculated to impress it upon the minds of all, that we are compelled to say, if any of us have not made sufficient progress, it has been owing to deficiency on our part.

A further, and indeed, a special advantage which we have derived, is our exemption from the new regulations lately enacted by the Apothecaries' Company, regulations which would have protracted the completion of our studies, as we fear they will those of other young men equally advanced with ourselves, who have not had it in their power to avail themselves of similar advantages.

Though many of us, in the further pursuit of professional knowledge, will have opportunities of observing the genius and acquirements of various ornaments of our profession, yet we feel fully persuaded that your lectures will yield to none in excellence, and that it will prove a source of pleasure to us hereafter, that our first specimen was calculated to impress us with so high and favourable an opinion of that community with which we feel it an honour to be connected, and one that has incorporated among its numbers, men whose names are so indelibly impressed upon the minds of all, that it would be useless to enumerate them—men who have made such splendid discoveries as render their names immortal, and which have tended so much to raise their profession to that high estimation in which it is held by the civilized world—a profession which, amid the rapid advance of science, has kept pace with every other in its progress.

We are fully aware, gentlemen, that many are the arduous duties that await us in our future life, and that it can be no easy task to perform those duties faithfully; we trust, however, that with such examples before us, we shall do credit to our teachers as well as to ourselves, remembering that no profession furnishes such opportunities of being of use and a blessing to our fellow creatures; ever bearing in mind, that he "who seeks alone for living homage, stands a mean canvasser in the porch of Fame, and never shall his worshipped image, fixed above, claim for his memory a glorious immortality."

Gentlemen, we are shortly about to be distributed, each taking a different course to reach the same goal, and it is more than likely that none of us will ever meet you again upon an occasion similar to the present; but should some of us have that pleasure at some future day, it will not probably be before time will have beguiled us of our strength, though we shall have witnessed its flight without a sense of our change—so little do we mark its progress; but however long or short our life may be, kindness on your part, and gratitude on ours, has begun a tie that will ever be strongly entwined among the most pleasing recollections of our days.

ELECTION OF MEDICAL OFFICER TO CHRIST'S HOSPITAL.

OUR attention has been attracted for some time past by a matter of serious importance to the rising generation, which some of our contemporaries have properly noticed at considerable length—we allude to the health and education of the children of that noble institution, Christ's Hospital. For many years (there appears to be no question as to the matter of fact) the children have been, at the infantile establishment at Hertford, receiving a disease by infection, from those who had gone in before them, and again transmitting it to their successors. Now the mere agency of diseases of the scalp, or any part of the cutaneous surface, inasmuch as they do not generally involve the risk of life, are usually looked on almost as simple inconveniences by those who know not the dreadful sufferings of the patient. The adult suffers from them for years, being in other respects in tolerably good health, but the unfortunate children of Christ's Hospital sustain a double misery. They are received in health, to obtain the advantages of education, the means of such education being amply provided; they become diseased, and as a necessary result—for such it has been found to be—the advantages of education, full, fair, and complete, have seldom, if ever, been obtained by them.

The questions which appear to arise to us are, first: What is the nature of the causes, and what are the characters of those diseases among the children of the Hospital, which have been considered infectious and designated ringworm, scalled head, &c.—leading the authorities of the institution to separate these unfortunate children from their school-fellows, and thus deprive them of their education?

To this we reply, as we think has been satisfactorily proved by Mr. Plumbe, that the primary causes of these diseases may be found in the dry animal diet of the children, and the cruel privation of vegetable matter, in the shape either of potatoes with their meat, of fruit with their puddings, or in any other form.

As to the characters of the diseases, they are such as we well know to be producible by a diet like that which has been heretofore by law the diet of the children of the institution, without the agency of contagion. They appear to have consisted, in a large proportion of instances, of small abscesses in the cellular membrane beneath the scalp, which destroyed the hair, and gave to the spot the character, so far as baldness was concerned, of ringworm; but very generally, as it appears to us, it would have been difficult to select, at any particular period, a few cases of true contagious ringworm from the whole establishment. Such at least we know to be the opinion of a very competent judge of the points, who has given considerable attention to it.

Looking with a kindly eye at the position of these poor children, and with anxious wishes for their education, according to the spirit of its founder, it becomes our duty as medical journalists, at the present juncture, to call the attention of our readers to the approaching election of a medical superintending officer and surgeon, the office having become recently vacant by the resignation of a gentleman upwards of eighty years of age.

Our readers are, for the most part, gentlemen of established reputation in the practice of medicine, and it is well known that the Governors of Christ's Hospital desire only such to come before them as candidates for the appointment. We say, let those go forward as candidates who have experience to allege in their behalf; for the list which has been laid before us contains names of persons not out of their pupilage! The Governors of Christ's Hospital will, we hope and believe, do what is right; but we fear alike private influence and party feeling;—the sole medical charge of eight hundred children should only be committed to a man whose personal experience has emancipated him from the influence of the mere instruction of his preceptor, and enabled him to take and establish views of his own.

If such can be found, we shall consider it a fortunate event for the children of Christ's Hospital, if he be appointed; but we are of opinion with our contemporary, the Editor of the *Lancet*, that it is incumbent on the Governors of the institution to change, and change, and change, till ring-worm be exterminated, and the course of education of the poor children run smoothly and uninterruptedly; because EDUCATION was the object of the founder, and this will be interrupted so long as ring-worm remains. In our opinion, the electors are morally bound to choose the most experienced superintendent, and one who is most distinguished for the treatment of ring-worm. They ought not to elect an inexperienced surgeon, much less a student, though there are candidates of this description who come forward to oppose a gentleman who has devoted his attention and observation for many years to the investigation and treatment of diseases of the skin, and written the best English work on the subject, and the best on the very disease which has so long existed in Christ's Hospital. We need scarcely remind our readers, that we allude to Mr. Plumbe. He has the strongest claims to the appointment, and did it rest with the profession, he would be unanimously elected. We therefore call upon our readers, on the grounds of humanity and justice, to use their influence with the governors in his favour, and to secure to the children of their fellow citizens the best medical aid that can be obtained for them. Let them urge the claims of Mr. Plumbe, our best living author on porrigo

and cutaneous diseases—one whose work are highly estimated in other countries as well as our own.

—o—

WANT OF "ESPRIT DU CORPS" IN THE PROFESSION.

—

To the Editor of the London Medical and Surgical Journal.

SIR—Nothing more surprises us of the uninitiated in medical tactics, than the inferior rank in social estimation, which the profession of medicine in all its branches is compelled to sustain. Magnificent as has been its progress in science, still its advance in the opinion of the world has been but tortoise-like. When the medical profession is compared with that of the church, the law, the army, the navy, the philosophical result would be the admission of the superiority of the first. A convenient change of politics can create a right reverend lord bishop; effrontery, and case memory, a lawyer and judge; successful accidents, a great general; but nothing but intense study, attentive practice, and constant research, with a mind of strong powers, can form a talented physician.

Then, in reason, the latter profession ought not to be of inferior regard to the others: but is the fact so? Let any man who knows the world answer the question. A doctor of divinity would be mightily offended if you were to mistake him for a doctor of medicine; thus is hypocrisy preferred to science. An officer of the army disclaims the idea of the most talented physician of the greatest attainments being permitted to sit in that House which is adorned with the political honesty of the Phillpotts and Lyndhursts, and with the bright talents of the Newcastles, and St. Albans. Now, of what use is an officer of the army to mankind? To murder—I beg pardon, to put to death persons innocent or guilty, it matters not, according to word of command, and yet such an automaton of slaughter thinks his profession (wearing the livery of a king) far superior to that of a man who assuages the ills of the human race, who often beats off death himself, and whose mind is adorned with the brightest jewels of science. But the navy it is which displays the most arrogant contempt of the medical profession. The very highly talented man, whose fate it is to be compelled to be an assistant surgeon in the navy, must make up his mind to live with boys in the midshipmen's mess. Though admitted to the honours of his profession by men of science, who have recognised him as their equal, he is not admissible as a companion on terms of equality with lieutenants and pursers. Why the capacity of weighing tobacco and measuring out rum should make a purser the superior of one whose skill is to restore the balance of nature in the human frame,

I cannot imagine. No medical man can hide from himself the fact, that his profession is not regarded with the same reverence as those which are either less useful to mankind, or else are positively mischievous. To a layman, the cause of this curious tortuosity in human opinion, appears to result from the want of concord between medical men as a fraternity. With them the fable of the bundle of sticks is verified most literally. In the army, the navy, the bar, and last, though by no means least, in the church, the *prestige* of the profession is maintained by the *esprit du corps* which actuates its members. However men of the bar, for instance, may differ in politics, or in social intercourse, the instant an attack is made upon the divinity of the common adoration, they are united to resist it; the moment that the desire appears to touch one loaf of "shew-bread," which the church calls its own, that instant the priests, the prelates, the parsons, however disunited before, high-church or low-church, Arminian or Calvinistical, elected or non-elected, evangelical or non-evangelical, broad-brimmed or narrow-brimmed, shovelhatted or unshovelhatted, all flock together, and scream at the top of their voices "the church is in danger"—take care of your souls against the march of infidelity and atheism.

With the medical fraternity, on the contrary, nothing in the appearance of union seems to exist. At war with each other (and many amongst you too ready to be subservient to the titled and highly appellated men of ignorant, useless, and mischievous vocations), the natural standing of your estimable profession is lost, and even a common parson considers himself superior to the most talented medical man. A youthful clergyman, who scarce has got from "possum to posset," would be mighty indignant if he were considered at all on an equality with a mere doctor of medicine. And a lieutenant of the navy who can manage to keep his reckoning with the aid of the sailing-master, would be very vociferous at even a hint that a medical professor was almost upon a footing with him, the commissioned, epauletted man of the quarter-deck.

The public sustains a great injury by this inversion of judgment. They learn to continue their preference to useless glitter and hypocritical pretence, and men of science, talent, and intellect, are made to yield their places in society to vice, ignorance, and vulgar assumption.

The same remarks which are thus applicable to the pursuit of medical science, attach also to almost every other branch of learning which has not been made an engine of state intrigue.

Without imitating the monopolising cha-

racter of the *esprit du corps* which animates other less in intellectual professions, the medical fraternity, forgetting all private dissensions and personal differences, should form such an union of their body, as would give them that natural standing in society to which their noble science, or rather cluster of sciences, so well entitle them.

The subject is one by no means unimportant. The natural, the virtuous, the beneficial ambition of a talented man, prompts him to exert his faculties so as to raise himself to the highest honours of the state; why then should those whose avocations are the most intellectual, alone be precluded from them, and why should a badge of inferiority be attached to the highest pursuits in which human intellect can be exerted.

I am, &c. &c.

A NON-MEDICAL.

—o—

BOOKS.

The Code of Health and Longevity, or a General View of the Rules and Principles calculated for the preservation of health and the attainment of long life. By the Right Hon. Sir John Sinclair, Bart. 5th edition. 8vo. pp. 602. London: Sherwood & Co.

[This work has been translated into the different European languages, and is one of inestimable value to mankind.]

A Dictionary of the Terms used in Medicine and the Collateral Sciences. By Richard D. Hoblyn, M.A., Oxon. 12mo. pp. 329. London: Sherwood & Co.

[A work much wanted, and very ably executed.]

A Practical Treatise on Diseases of the Teeth, in which the Origin and Nature of Decay are explained, and the means of prevention pointed out. By William Robertson; with plates illustrative of the Author's views. 8vo. pp. 158. Six plates. London: Longman & Co. Birmingham: Belcher & Son.

[For notice of this work see our present number.]

—o—

CORRESPONDENTS.

Mr. Dermott's communication requires modification before we can insert it.

A Student.—We really cannot answer for the Apothecaries' Society—he should write to the Secretary on the subject. It is clear there can be no more three months' courses; but whether attendance on the first or last three months of a six months' course will be received as formerly, we know not. We would advise students to commence in October, and not to wait until January, as formerly.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 191.

SATURDAY, SEPTEMBER 26, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXX.

Hypotheses of Muscular Contraction—Summary of the Phenomena of Irritability and Life.

VI.—THE last, and perhaps the least objectionable explanation of the proximate cause of muscular contraction is founded on the presumption that it depends upon the bending at more acute angles—not as dependent on any influx of blood, but spontaneously—of the larger fibres of the muscles, in conjunction with a similar bending, first of the smaller fibres of which these larger fibres are composed, then of those of which this second set consists, and so on till we come to the primitive fibres, which likewise—as perhaps always in some degree tortuous—are all bent in the same manner (*a*). In this way it is attempted to explain how it happens that, while a muscle in general becomes shorter during its action, in proportion to the intensity of this action, it may act more or less forcibly with precisely the same degree of shortening, as in the instance of closing the jaws more or less firmly, as well as that it may sometimes act violently without any diminution of length at all, as is frequently the case in cramp. For it must be obvious upon reflexion, that while the more zig-zag direction of those fibres which run parallel with the general course of the muscle—as we may, for the sake of simplicity, suppose them all to do to begin with—must tend to shorten this organ, a similar zig-zag direction of those fibres which run diagonally with respect to the general course of the muscle—as must be the case with all those of which the first set of fibres consists upon the direction of this set becoming zig-zag—will have no effect in either shortening or lengthening it, while the same zig-zag direction of those fibres which run transversely with respect to the general course of the muscle—as many must do in the course of these repeated bendings within bendings—must tend to render the muscle longer instead of shorter than before. Hence it is easy to understand that so long as the chief seat of this bending is in those fibres which run parallel with the course of the muscle, the action of the muscle will shorten it; but that while other fibres may be called into action without any further diminution of its length, so when the latter fibres are the chief seat of the bending, or when the bending of those fibres which tend to lengthen the muscle is such as to neutralize that of those which tend to shorten it, no change whatever in its length needs take place. This zig-zag direction, as well of the minute filaments as of the larger fibres of the muscles during their contraction, appears to have been verified by microscopic observations; and the theory which ascribes the contraction of muscles to this cause does not seem to be liable to any of the principal objections which have been urged to those that have preceded it. It implies no direct connexion with the cerebro-spinal system of nerves, no immediate influx of blood, no increase in the bulk of the muscle, no presence in this muscle of principles which it pretty certainly does not contain; and it further explains more satisfactorily than any other doctrine, the increase of mechanical cohesion with which muscles during their contraction are well known to be endowed (*b*). There is, it is true, sometimes slung to this theory an appendage which, however favourable we may be to it in other respects, it is quite

(*a*) Dumas and Prevost, Dutrochet, &c.

(*b*) It has been abundantly established by Bernouilli, Reaumur, Spalanzani, and others, that a muscle during its contraction easily

sustains a weight which would have instantly ruptured it, and easily resists the entrance of sharp instruments, which would at once have penetrated it in a state of relaxation.

unnecessary to adopt—namely, that this zig-zag course of the fibres and filaments of a muscle is owing to the approximation of the transverse nervous branches with which they are supplied, and which reach them, it is said, precisely at those points where they are to be bent during the contraction of the muscle, such approximation of the said nervous branches being by virtue of galvanic attraction, or the transmission to them of the galvanic aura by the main trunks. All this appears to be gratuitous, and a great part of it absurd—to say nothing of its again involving us in all the objections already urged to the nervous influx hypothesis. Without this codicil, however, it is probable that the doctrine last stated gives the best explanation hitherto offered of the mere mechanism of muscular contraction; but at the same time it must be continually kept in mind that there is still a wide unoccupied gap between simple irritation, or the perception by a muscle of a stimulus, and the assumption, by its fibres and filaments, of this zig-zag direction, as a consequence of it. In what way the former gives rise to the latter, if indeed it do so, is still totally unexplained, and in all probability, as a process entirely *sui generis*, is totally unsusceptible of explanation—at any rate, a knowledge of the mere mechanism of muscular contraction, were it attained, would throw no more light on this process, than a description of the wheels and motions of a carriage would illustrate the nature of the power by which it is drawn forwards.

From what has been above said of the nature of irritability and irritation—or irritability called into action by the requisite stimuli—it will readily appear that the practice of speaking of irritability or vitality as of something substantial, something which may be *per se* accumulated, diminished, exhausted, is erroneous; but the error amounts merely to this, that, for shortness' sake, we speak of the *property* as directly so affected, whereas it is in fact the *substance*, of which this property is the attribute, that is so, the property however manifesting, of course, corresponding changes, since the degree of irritability in any part will necessarily be in the direct ratio of the quantity and quality of the irritable matter which it contains (*a*). But the ganglionic nervous tissue—assuming this as the immediate seat of the property in question—is of course continually renewed and consumed, like all the other tissues of the body, by molecular processes, the seat of which is the parenchyma; which thus effects incessant changes in this tissue, not only as interwoven with the substance of every other organ, but also as entering into the composition of the minute vessels of which itself consists. While the capillary arteries, therefore, are continually depositing new portions of this tissue from the mature fluid which they contain, the vessels of the veins and of the lymphiferous and chyliferous vessels are equally continually breaking down and conveying away into the crude fluids other portions of it; and so long as the various stimuli to which these two sets of vessels are exposed are natural—in other words,

It is obvious, therefore, that the weight which a muscle will support, or the impulse which it will repel after death, can be no measure whatever of the force which it is capable of exerting during life, regulated as this force is by a vital change, of the degree of which, in any given instance, as determined by the irritability of the muscle on the one hand, and the stimulus acting upon it on the other, we can form no sort of estimate. The mere physical cohesion of a muscle is perhaps as great after a long walk as before it, and when we are under the influence of a depressing, as when under that of an exciting emotion; and yet how totally powerless is it in the former cases, and how powerful in the latter! If vitality renders us almost independent of chemical science, in determining the composition of the organized body, it renders us almost equally independent of mechanical science in calculating its actions; and we may form some idea how difficult is the problem respecting the force of muscular contraction, from the discordancy of the solutions given of it by the ablest mathematicians, Borelli for example representing the force of the ordinary contractions of the heart as equal to 180,000 lbs.

and that of those of the stomach as equal to 261,186, while, by Keill, the force of the former is reduced to 5 oz., and, by Astruc, that of the latter to 3! It is unnecessary to say that the principles upon which these calculations were founded, were in the different cases very different, but their result is sufficient to show that little or no greater reliance can be placed upon any other data, than upon their degree of mere physical cohesion in determining the force of the contractions of muscles. But the fallacy of these pursuits is at present pretty generally admitted by physiologists—pity that that of chemical doctrines, in their application to physiology, is not equally obvious.

(*a*) "We are not to imagine it (irritability or excitability) as an *isolated force*, merely attached to organisms, and objectively different from their organic constituent matter, capable of change, of exaltation or diminution, without a simultaneous change in that matter. On the contrary, we are to regard it as a *quality*, founded on the specific state of the organic matter and the organization (organism), and altogether dependent on these." (Tiedemann's Physiology, by Gully and Lane, 1834, sect. 557.

so long as the excitement of any given part is neither greater nor less than it should be—the one process precisely balances the other, and neither a deficiency, nor an accumulation of this tissue, nor consequently either a diminished or increased display of irritability or vitality is the result.

Deposition, however, is a process to which inordinate excitement, however favourable it may be indirectly, by the subsequent collapse which it occasions, is directly prejudicial, the amount of the matters deposited being, generally speaking, in the direct ratio of the quantity of blood contained in the capillary arteries, operating upon them as a preternatural load, and this will of course be greater as their excitement is less; whereas absorption, on the other hand, is, like all the other processes of the living body, directly favoured by inordinate excitement, the amount of absorbed matters being, generally speaking, in the inverse ratio of the quantity of fluid which the radicles of the veins, and of the lymphiferous and chyloferous vessels contain; so that they are relieved from a part of their accustomed load, and this will necessarily be less as their excitement is greater. This is not the place for attempting to establish these facts at any length: it may be sufficient to mention here, in support of the above proposition, the mere circumstances of deposition being promoted by plethora, and of an excess of it being a constant consequence of that diminished irritation of the capillary arteries which constitutes inflammation; while absorption, on the other hand, is promoted by depletion, and by the increased irritation produced by pressure, friction, and stimulating applications of all kinds. Now, upon these principles, what must be the consequence of a greater or less excitement than natural of any part, with respect to the condition of its ganglionic nervous tissue, and consequently with respect to its subsequent manifestation of irritability or vitality? The ordinary deposition, or process of renewal, is incompatible, as has just been said, with more than the ordinary irritation of the depositing vessels, while the ordinary absorption, or process of consumption, is not only compatible with, but is favoured by a preternatural irritation of the vessels employed in this process: hence it must result that every greater degree of excitement than natural, will be followed by a proportionate deficiency of irritable matter, at once from defective deposition, and excessive absorption, and a correspondent failure of irritability, as every less degree of excitement than natural will by directly opposite effects (a). It is quite unnecessary then to receive as an ultimate fact, as is usually done, the axiom that *Irritability is diminished by every excess, and increased by every deficiency of irritation*, when it is susceptible of so simple and satisfactory an explanation. The fatigue experienced from over-exertion, which consists merely in an incapacity, owing to defective irritability, to obey the usual stimuli, and the increased energy acquired by rest, which implies nothing more than a preternatural susceptibility, owing to excessive irritability, of the action of such stimuli, are familiar illustrations of this law of the animal economy, which extends equally to all instances of irritation, whether the action which has been excited be sensible or molecular, and whether the function involved belong to those called organic, or to those called animal, in the former of which, irritation is all in all, and of the latter of which it constitutes a fundamental and essential part. It is thus that we explain the comparative immunity from the effects of intense heat, of air vitiated by various deleterious gases, or by certain contagious or infectious means, of certain unwholesome kinds of diet, and of certain poisons, of violent mental emotions, and of numerous other agents, at first highly prejudicial, acquired by long or frequent exposure to them; and it is from the same cause that we cease to experience any good effects from the most wholesome aliment, from the most salutary medicines, or from any other agent, however beneficial at first, in proportion as the system becomes accustomed to them. Among the most striking examples of this demonstration of irritability from inordinate irritation, is the diminished liability to certain diseases, which results from their having once occurred; some, like rubeola, scarlatina, varicella, variola, and pertussis, affording an immunity in general for the remainder of life; others, like the plague and yellow fever, for years; others, like ordinary typhus fever, at least for weeks, and perhaps almost every disease for some time, longer or shorter, in proportion to the character and intensity of the irritation which it occasions. In general it is only with respect to the particular stimulus, by which the inordinate irritation was in any given case occasioned, that the irritability is diminished—a fact which may be easily explained when we reflect on the almost infinitely numerous modifications of this property, any one of which alone may be readily supposed to be diminished or exhausted by one particular character of irritation. Thus the nostrils which have become almost callous to the stimulus of snuff, are still affected as violently as ever by ammonia; and the sore,

(a) Valuable as were many of the doctrines of poor Brown, he was manifestly wrong in his principle that irritability, or as he called it, excitability, was an entity imparted to every living being in a certain proportion

at birth, and that when his stock was exhausted there was an end of him. No arguments can be requisite to disprove this untenable hypothesis.

which is no longer benefited by a lotion which has been for some time employed, improves rapidly under a new, although perhaps, abstractedly, a less powerful application. In some cases, however, one kind of irritation may diminish or exhaust the irritability, not only with respect to that particular stimulus by which itself was excited, but with respect to more or fewer others; and it is thus that we must explain the immunity resulting, it is said, from the irritation produced by belladonna, with respect to the exciting cause of scarlatina, and from those produced by vaccine, with respect to the contagion of variola; nor is it improbable that many other comparatively mild kinds of irritation may in future be found capable of destroying in a similar manner the susceptibility of numerous other equally destructive diseases. On the other hand, the increased susceptibility of the action of various agents resulting from diminished irritation is very well illustrated by the baneful effects of even the most ordinary stimuli upon persons from whom such stimuli has been for some time withdrawn. Every body knows how violent are sometimes the effects of the slightest heat on those who have been long exposed to cold, and of the smallest quantity of the most simple aliment, on those who have suffered from long abstinence, and of frequent exposure to the exciting causes of diseases, and still more the actual occurrence of such diseases, renders the body comparatively exempt from their influence, a long continued freedom from such exposure is not less effectual in increasing the liability to be affected by them the first time we are thrown in their way. Upon the same principle, however, if we are more likely to be injured by deleterious agents, we are at the same time more likely to be benefited by such as are salutary, from a long disuse of them.

It will hence appear how very materially the law of irritation now under consideration must operate in keeping us, generally speaking, under almost every variety of circumstances, in a comparatively steady course; and how effectually it must tend to counteract, on the one hand, the influence of many agents calculated to do us harm, and, on the other, every attempt on our part to work miracles on our constitution, and to render ourselves invulnerable and immortal. If in proportion as we are subjected to the operation of deleterious agents, they lose a great part of their ascendancy over us, and the more carefully we recede from them, the greater is the effect which we experience from them upon every accidental exposure, and if again any beneficial agent becomes inert in proportion to the frequency of its application, while it acts powerfully when we have recourse to it but seldom, how comparatively independent must this make us, in the long run, of almost every change of condition; how satisfactorily does it explain the fact, otherwise so inexplicable, that man has in all ages existed, and does still in all places exist nearly or quite the same in all his physical characters, as at the first; and how clearly does it demonstrate the futility of a great part of the precepts of physicians in regard to many practices which they are pleased to pronounce absolutely and constantly prejudicial or the reverse! Such is the levelling influence of this law, that the greater number of those deleterious powers which, had they the same effect upon us on frequent repetition as they have the first time we are exposed to them, would soon overwhelm us with destruction, and most of those salutary agents which, did they continue after a time to affect us as they do before we are accustomed to them, would soon exalt us beyond our sphere, become in a short time comparatively inert in bringing upon us either evil or good; and if it do not prevent us from being depressed or raised for a time by numerous contingencies, it effectually preserves us from undergoing any very remarkable permanent alteration. Man is found in every climate, in every condition, from that of the most abject penury to that of the most luxurious ease, and feeding by turns on every thing which comes in his way; and what must have been the consequence had nature not implanted in him a faculty which prevents any thing from being either very bad or very good for him, except for a time, while it renders every thing, sooner or later, subservient to maintaining him in equilibrio, and to keeping the Esquimaux and the Negro, the rustic and the citizen, the beggar and the king, the same "poor, bare-footed animal" that he was originally created? It is this faculty in virtue of which we become, as it is so generally called, second nature; and this faculty, proportioned as it appears to be in all animals to their opportunities of tampering with themselves, is greater in "poor unaccommodated man" than in any other. Not only is he much more exposed in his various pursuits to innumerable evils than any other animal, but he alone of all animals is continually allowing the artificial dictates of reason to interfere with the natural impulses of instinct in the management of himself, and he is consequently much more frequently the victim of disease than brutes. But a great part of what would otherwise be the effect of his malpractices is still constantly counteracted by this safety-valve within him, which, in neutralizing nine-tenths of all the bad consequences which we should anticipate from *à priori* reasonings, laughs to scorn many of the solemn denunciations and injunctions of those who indulge in them, and by opposing every day's experience to their conclusions, has always rendered, and must continue to render them suspected and ridiculous (a).

(a) It would be amusing, if it were not melancholy, to notice the infinite attention

with which some persons are accustomed to regard the veriest trifles in the care of them-

selves, and the ardent hopes which they entertain of incalculable advantages from some established system of self-management; and it would be laughable, if it were not disgusting, to find such persons continually encouraged in their delusions by those who ought to know better. A man observes that by going for once into cold water he derives from it additional vigour both of body and mind, and he imagines that he can make himself unimpregnable and almost immortal by persevering in its use; but alas! if he shall accustom himself to it for only a week, he will find himself less invigorated by its employment than debilitated by its disuse. In like manner, a few glasses of wine to one unused to them are no doubt vastly refreshing; but he who would perpetuate their grateful influence from day to day, *may* descend into habits of drunkenness, he cannot rise into preternatural health, since it is only by exceeding custom that the body can be for a time excited, and it soon again finds its level, if it do not sink below it. We may accumulate artificial wants, but we cannot make ourselves what nature has not made us, and it is written, man is not made to be exempt from maladies, or to last for ever. The very care to preserve health is, by increasing susceptibility, the indirect cause of disease—the more rigid has been the observance of regimen, the more pernicious will be the slightest aberration from it; and one act of intemperance, or one deviation from a settled plan, shall do more mischief to the man of rule, than repeated irregularities to the habitual rake, since, in the latter case, what they gain in frequency they lose in force. Of a similar nature is in all things man's imaginary power over his own constitution. As he resolutely recedes from one hastener of destruction, he rapidly approaches another;

*“Gross riot treasures up a wealthy fund
Of plagues, but more inmedicable ills
Attend the lean extreme;”*

or if he shall be content to “use all gently,” as nature is a glutton in nothing, he will, probably, like other moderate livers, have his share of sickness and sorrow in this world, and when his time cometh, be called upon to leave it for another. Nevertheless, if one should listen to the whining of philosophers, poets, and physicians, from time immemorial, one would be led to believe, that under certain circumstances there would be no disease, and under others, no health; that he who lived in the country, on the produce of the ground which his own hands had tilled, without ambition, and almost without passions, should live on so for ever; while the miserable inhabitant of cities, in the midst of vitiated air, unnatural hours. “fresh cups, soft beds, sweet words,” should

enjoy a mere ephemeral existence, and sink into an early grave, overwhelmed with all manner of disasters. But what is the fact? The latter is perhaps less robust and ruddy than the countryman, but not less healthy; and if he have not so much strength, has still quite as much as he has occasion for, can bear many fatigues under which the rustic would sink, and in all likelihood, lives equally long and equally happily. “Toil, and be strong,” says the poet; but we must distinguish health from bodily power, as we distinguish the accurate ballancing of a pair of scales from the weights which they sustain. Our women “toil not,” neither do they spin much now-a-days; and yet they generally contrive to outlive us. The fact is, that the greater part of what is commonly advanced on these subjects, however well intended, is little better than cant; and the permanent effects commonly attributed to country air, a rule-of-three kind of diet, regular exercise, and so forth, upon *a priori* reasoning, however admirable some agents may be as remedies of disease, when our object is to effect only the temporary change in which a return to health consists, are perhaps always considerably over-rated. Vice and disease are confined to cities, and virtue and health to the country, only in the works of vapid moralists and muling poetasters; and if it is consistent with every body's observation, that man can on the one hand subsist and undergo great exertion for years together on only a few ounces of oatmeal, or potatoes and water daily, it is not less so that he can bear for years together, many pounds of high-seasoned meats and fermented liquors daily, with little or no exercise at all. We commonly, like young logicians, prove too much when speaking of the effects of practices unquestionably in some degree pernicious, and render our advice mistrusted by exaggerating these effects, and by founding our representations on what *ought to happen*, consistently with our limited view of the resources of nature, rather than on what *really does happen*, and may be observed to happen by all men. It is very shocking that persons will not always die nor continue to live under circumstances when, according to established rules, it seems incumbent upon them to do so; but such is the contumacy of nature, that, while she leaves to philosophers the privilege of determining the prognostics of every case, she always reserves to herself the right of settling the facts; and from the days of the doctors of the Sorbonne to the present, has seemed to take delight in exercising this right, to their constant mortification and discomfiture.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XV.

*Transition of Inflammation from the exterior
to the interior of the Body—General Observations.*

WE have now finished the external inflammations, the signs of which are directly perceptible; if there be any into the details of which we have not entered, we have at least laid the stress on them that they merited. You must have remarked a certain number of general facts that are common to all these inflammations, and these I shall now recal to you, as they are indispensable preliminaries to the diagnosis and knowledge of internal inflammations.

Of these facts, we shall first of all mark the tendency of inflammation to propagate, and the varied degree and nature of this propagation, according to the structure of the organs and the intensity of the affection; and next to it, the dissemination of the irritation, that is to say, the augmented movements of non-inflamed organs, and the repetition of the phenomenon of inflammation in some of them. The proof of this fact has been derived from the augmentation and diminution of the external inflammation, in which you beheld the phenomena of propagation and dissemination increasing or decreasing as the primary inflammation did, or as it was made to increase or decrease by various modifying means: and seeing this, you cannot do otherwise than consider the dissemination of the irritation, and the repetition of the inflammation, as necessarily connected with the primary inflammation.

Two distinctions in external inflammations were made when it was stated that some are circumscribed, confined to a very slight degree of propagation, and do not cause disturbance of the functions, whilst others do cause such disturbance. We inquired into the cause of this difference, and we found it in the extent and intensity of the inflammation. Connecting this fact with the preceding, we laid it down as a principle, that in order to prevent or annihilate the phenomena of propagation and dissemination, the external phlegmasia should be reduced to the most simple condition, so that it should not react on the system. The possibility of thus reducing very many of these inflammations within bounds, and keeping them there by treating them on the onset, will have convinced you of the truth of the axiom that inflammation only tends to reproduction in other organs when it has acquired extent and intensity in its primary seat, but that when limited, it

only acts on the neighbouring parts. These principles have been extensively applied to practice by men of honest intentions, who have no aim but the attainment of truth and the progress of science. In surgery, more especially, there are some who, striving to put limits to inflammation, and to crush it in the onset, have put a stop to local disorders for which operations would have been necessary, and prevented general disturbances in the system; such as traumatic, secondary, and humoral fevers, as they used to be called—medical diseases, as the expression went, that we added to the surgical malady. My principal opportunities of observing the immense difference in the results of the practice of physiological surgeons, and of those that were not so, were gained during my military career, after great battles. The latter contented themselves with immediate union, or else, after making incisions (debridements), hastened, if there was redness, to make local application of camphorated spirits, aromatic wine, or bark: sometimes for a slight contusion they lavished stimulants with the pretext of producing a revulsion or resolution, and freely gave the patients whatever they asked for, without any regard for the irritability of the organs. After a week or a fortnight of this treatment, their wards became filled with what they then called putrid or typhoid fevers, and death was abundantly busy. This sight I first beheld during the Vendean wars, and I was so struck with it, that it has never left my recollection. At that time I had abandoned the study of surgery to serve as a private soldier, and an accident having forced me to enter the hospital of Angers, I saw a multitude of wounded people die there, consumed by a burning fever and a fetid suppuration that infected the wards; the disease even attacked those who had no external affection, the pupils that dressed the wounds, the hospital servants, the *sœurs de charité*, and every one about the place.

None of this is observed in the practice of physiological surgeons: the inflammation being properly attacked, never stimulated, and the diet rigidly prescribed, no traumatic fever is seen, or only in slight degree: the typhus, which they attributed to the crowding of the sick, was no where met with; tetanus, so common in practice where antiphlogistics are neglected, is then exceedingly rare; and immense wounds and purely inflammatory diseases are thus deprived of all their frightful consequences. But a still more convincing application of the principles that I am now summing up is that which has been made in the case of lymphatic and scrofulous tumours, called white swellings. Against these diseases, though they are below the ordinary type of inflammation, immense success has been obtained by means of local and general antiphlogistics, seconded by abstinence from food and motion, compression, revulsives, and narcotics: here, at least,

the evidence of cures was irresistible, and the conviction of the rising generation of medical men has remained fixed.

Armed with these data, you are now about to plunge with me into the great question of internal inflammations, one of the most difficult problems for us who are accustomed to proceed by the aid of our senses only—a habit in which we cannot now indulge so conveniently. The locality whither the phenomenon we are considering is transported is hidden from us by a veil which we have no power to withdraw; for how can our senses penetrate the interior of the body? Nevertheless, how are we to make use of the phenomena that we observed in external inflammations? Shall we inform ourselves by comparing the inflamed parts, by seeing whether the local phenomena of the interior resemble the local phenomena of the exterior? but this is only practicable in the dead body—you cannot open the bodies of the patients you are called on to relieve; you are, therefore, reduced to the necessity of comparing with each other the inflammatory phenomena that are accessible to your senses. And what are they? I shall pass them in review by comparing the already known ones of external inflammations with those of internal inflammations.

1. *Pain*.—It is deceptive; the signs it furnishes concerning the internal condition are reducible to very few; pains may be felt in organs that are not inflamed as well as in those that are. If a patient is only prepossessed he will tell you he feels it, without having any inflammation, and will describe all the sensations he experiences: every practitioner has observed this, especially in hypochondriacs. On the other hand, an internal inflammation may exist without pain, or with pains that have no resemblance to those produced by external inflammations. Medical men that have attached too much importance to this phenomenon have often committed grievous errors, and they who, taking it for granted as constant in inflammation, have denied the latter when it is accompanied by pain, have only advanced a worthless objection. Most frequently in internal inflammations, pain disappears after a few days and sometimes even after a few hours of antiphlogistic treatment. This fact, unknown as it was, has often been the basis of arguments against our doctrines, so little advance had there been made, at the time of its appearance, in the phenomenon of inflammation.

2. *Heat*.—It should be divided into that perceived by the patient and that recognized by the observer. The former is equally deceptive with pain, because it is a sensation: the patient often has a feeling of considerable heat, though he has no inflammation, as is seen in hypochondriacs and neuropathic individuals. On the other hand, there are many cases of serious internal inflammations in which the patient perceives no heat and is intent upon other sensations; sometimes even the perceptive faculty is so interfered

with that patients have no consciousness of heat in inflammations that develop it most abundantly; on this point therefore we can conclude nothing certain from the patient's declaration. But, you will say, the observer is on the spot; the enlightened physician will perceive the heat of the inflammatory state: but this is not so easy as it at first appears. No doubt there are cases in which the heat of the viscera may be distinguished from that of the skin, for instance in some inflammations of the abdomen, where that which proceeds deeply from the bowels is distinctly perceptible, as also in inflammations of the chest, of the head, and of the spinal cord. But this is only possible when these inflammations have attained a high degree of intensity; for in the onset the inflammatory heat is rarely perceptible to the observer: in the *sumnum* the phenomena become confounded with each other and altered; in the decline, which often tends to chronicity, it can rarely be distinguished.

3. *Tumefaction* of internal organs may be met with without inflammation: it is of no value as a diagnostic sign, except it be united with other signs.

4. *Redness* does not appear, and is never seen. There is certainly a repetition of this phenomenon in the skin, and to a certain degree in the apertures of the mucous membranes: but this is not always the case: several particular causes, independent of inflammation, may produce it. It is not a perceptible sign of internal inflammations.

Behold then the four principal phenomena of inflammation, on which our diagnosis of inflammation in the exterior of the body is founded, pretty nearly useless in that of internal inflammations. What then remains? the examination of the organ after death—a late examination, it is true, but the chief foundation of our pathological knowledge. When the patient dies he is opened, and the traces of the internal inflammation that killed him are seen. But that this examination be not utterly barren, something should be made to connect it with the next case that appears. This bond is furnished by the phenomena of propagation and dissemination, which will be of the first importance to us. Hitherto you have regarded them as secondary, and in future our attention will be most especially fixed on them; in fact, how would you be able to detect in the living body, and without opening the body, the inflammation that you have ascertained in the corpse after death? You will detect it by the phenomena of propagation and dissemination, which are to be found in internal as well as external inflammations, since the local phenomena of both are the same. Leaning on this reasoning, you will observe the first patient that is presented; you will find in him the phenomena of disseminated irritation and propagated inflammation, and you will say, "this patient may have internal inflammation, though I do not see it;" he dies, and in the autopsy you

recognize the existence of that inflammation. You then have right to thank the phenomena that guided you so well. But you will perhaps ask me why I call them phenomena of dissemination? I have already told you; it is because they are the effect of the irritation transmitted along the nerves to the different organs—a transmission that first of all produces neurosis, pains or convulsions, then alterations of the secretions, sanguineous congestions, and finally, a secondary inflammation, often resembling the first. Here then is a new route opened to you by these phenomena: you already suspect, and in a short time you will positively ascertain, by their means, a host of diseases that may be verified by the autopsy when that is permitted. I maintain it, medicine can only make progress by following this rational method.

But the certainty that we arrive at by opening the body may also be arrived at by other means. The success of the treatment which has arrested the dissemination of external inflammation is presented as a fresh and powerful proof. Indeed we have seen that by arresting and circumscribing it within the narrowest limits, dissemination is prevented or made to disappear when developed, and that it may be reproduced at will by stimulating the inflammation that is its *primum mobile*.

In order to comprehend internal diseases, and become true physicians, you ought to proceed from the exterior to the interior; otherwise all will be vague and your judgments precarious, and medicine will truly be what it has been said to be, merely conjectural, and not positive, as I assert it ought to be. Not so are the positive sciences learnt: the method I teach is the only one that will make you acquainted with them; it is long and arduous as well as philosophical; it supposes all possible kinds of instruction, together with normal and pathological anatomy. Your senses especially require to be perfected by long exercise in order to preserve you from illusions and rectify the errors of your imagination. With this condition you will arrive at the diagnosis of internal inflammations. Another condition which, thanks to the intelligence of our age, now exists is, that the inspection of bodies should be permitted and frequent; on this score we have an immense advantage over antiquity; and what I have been telling you is the consequence of it—no man could tell it without the aid of anatomy. What, indeed, must the result necessarily have been of the impossibility experienced by our first masters of arriving at the verifications and the train of causalities of which I have spoken? Why, that the phenomena of dissemination were not appreciated, that inflammation was first of all only known, or very imperfectly known, in the exterior of the body, and that previous to arriving at the possibility of establishing a fair comparison between the phenomena of external inflammation with those of inter-

nal phlegmasia, an almost infinite space of time went by, during which they did nought but wander about.

It ensued from this impossibility on the part of the ancients of gaining information by the inspection of bodies, that the phenomena of dissemination were not to them signs of inflammation; that they took them for what they appeared, and not for what they really were: that they were unable to detect the hidden cause of them, and only seized on the appearances, such as the fever, pain, attitude of the patient, foul mouth, alteration of the secretions, condition of the powers in general, fetidness of the excretions, &c. Now, what are all these? symptoms. These were grouped according to their affinities, and being so grouped, were called a disease; such were the diseases of the ancients, and this is what I call ontology. When I first mentioned it to ye, many of you did not, perhaps, understand me: henceforth you will know what to think of that system of medicine before which they would have you burn incense. Most assuredly we will be among the foremost to render justice to their good intentions, to the sagacity they showed in seizing the visible phenomena of disease, to the faithfulness of their descriptions, to the care with which they weighed the phenomena, to their indications towards death or recovery, &c.; all these qualities we admire in Hippocrates, but we say, these are specimens of precision, attention, and probability, but not lessons in medicine. We would not leave diseases to go on as did Hippocrates; if we are sometimes called for too late, after they have been allowed to gain ground, we would then verify what was said by Hippocrates and Aretæus. Mentioning the name of Aretæus, I may also mention that he who knew so well how to describe the *anginæ*, did not know how to arrest them, and considered them as subject to a species of fatality; the faithfulness of this description, all admired as it is, is a thing without application. I therefore maintain, however the declaimers may erect their feathers and complain of my irreverence, and vomit forth torrents of abuse against me, I maintain that the ancients never yet transmitted to us any exact knowledge of disease, except in a very small number of instances.

You now perceive our method of getting at a diagnosis of internal diseases; it is incomparably the most sure, but has not been perhaps so easily pursued by all medical men in every country. Thus, among the Arabs and Musselmans, the opening of bodies not being allowed, could not be performed; in the greater part of the world, even in England, it is extremely difficult to obtain examinations of corpses*. In the next place, those who

* It is hard to guess why M. Broussais thus mentions England on the subject of autopsies; if there be one country more than another in which absurd prejudice exists

first performed them were more or less exact in their examination, and those that were most capable of drawing proper deductions from this rich mine of truths were not always placed in favourable positions; they met with powerful adversaries, partizans of the old systems, full of prejudices, and such as placed obstacles in the way of their useful labours becoming of good effect; so that the progress of the science which they cultivated so courageously was not regularly made. The obstacles they met with, and the disputes that ensued, caused the groups of symptoms of the ancients, put forward by them as diseases, to be maintained and perpetuated, and this the longer, as pathological anatomy was not enlightened by physiology, at that time uncultivated and left behind, and as without this main point, medicine cannot be otherwise than defective. Yet the fund of justice and truth which this new mode of investigation of necessity brought with it, was sufficient to cause people gradually to estimate at their proper value the aforesaid groups of symptoms.

Of the phenomena of dissemination, with which inflammations are accompanied, the most striking is fever. So long as an internal phlegmasia has not reached the extent of producing it, it is limited as a vague something that indicates nothing to the observer; but when it has become sufficiently extensive to induce it, every thing is in a blaze, the functions are perverted, and the patient is obliged, in spite of himself, to stop short.

By fever, I understand the acceleration of the blood's course, with an augmentation of the temperature that is sensible on the exterior of the body and in the principal cavities. No doubt you will ask me to add *malaise* to these; but it varies in the onset, and disappears towards the close; you may also desire me to add the derangement of the secretions, but this again also varies according to the intensity of the fever: *malaise* and derangement of the secretions are not such constant phenomena as the others. This fever, this tumultuous state of the blood, this *fervor*, constitutes the principal phenomenon of dissemination; and hence it is that it gave its own name to the groups of symptoms of the ancients—groups that are nothing but the disorders or congeries that follow in the train of inflammation. The fevers, therefore, of the ancients, are, in a great measure, the representatives of internal phlegmasiæ. In fact, subsequent research has verified this; one by one, some inflammations have been withdrawn from the number of fevers. The fevers depending on pneumonia, or pleurisy, or peritonitis, on certain inflammations of the brain, those caused by some phlegmonous inflammations and depositions situated in the

visceral centres, have all been in succession recognized as such. In proportion as they found it possible to attribute the systemic disorders to a determinate inflammation, the list of fevers was diminished; they have even lessened it the more as the groups of symptoms representing independent fevers, or what were so considered, ran into each other; so that at last, even with the school alluded to, fevers were reduced in number to six, by Pinel's Nosography, their great authority. As, however, the fevers of this author had not characters sufficiently marked to be unconfounded with others, his classification was not allowed abroad, nor even in France, as fixed and invariable; they took the liberty of erecting groups of symptoms different from his. According to the importance attributed by each pathologist to this or that symptom, he made it the principal of a fresh group, and as the entities or collections of symptoms represented the state of no determinate organ, they were multiplied ad infinitum. Such was the chaotic state of medicine when I commenced my criticisms of it. In short, we see that one first reduction was made in fevers to the profit of internal inflammations—what was taken from the one was added to the others. Still many febrile groups remained, that had not been referred to their true destination: the febrile condition, the basis of them, was variously qualified according to the phenomena with which it was accompanied. One individual paid all attention to the bile, another to the strength; here stress was laid on debility, there on the nervous phenomena, as regarded their regularity or disorder. Others again looked only to the excretions, to the greater or less regularity of the disease, to the degree of suddenness of its termination, to its intensity, &c. Hence came the various denominations, bilious fevers, mucous fevers, putrid fevers, pituitous, nervous, malignant, and other fevers. In all this there is abundance of arbitrary assertion, and such might be expected, especially in ancient times, from the want of post mortem examinations, and the retardation of pathological anatomy. It would be alike unjust and foolish to reproach antiquity with its powerlessness in this particular. I have never done so, and imputations to that effect directed against me, are themselves neither more just nor more reasonable than the reproach would be.

The preceding only applies to the inflammations that are sufficiently great to produce fever; but you have seen in the exterior of the body a number of inflammations that do not go so far; you have seen that even after reaching such a point, they may be made to retire within limits that cause an end to be put to the fever, without the total disappearance of the local phenomena. Thus then fever only exists in the higher degrees of inflammation, and disappears in the lower degrees; after its disappearance, a fixed degree

against the practice, it is England; the learned professor should have said "especially," instead of "even."—J. M. G.

of inflammation may persist, and be only accompanied with other symptoms of dissemination—this is the chronic apyretic state of inflammation. When things are in this condition, the confusion is great; at least, it must have been so for many long ages; and if we have happily succeeded in dissipating it, it has only been by giving to all the phenomena of dissemination, without exception, an equal attention, so that when one fails, or is wanting, we are directed by others. We hold that the disturbances produced by the state of phlegmasia are not confined to fever; that state is also accompanied by a constriction and uneasiness of the neighbouring organs to that which is inflamed; the individual is unwilling to move; he is in pain and experiences malaise; he exhibits a series of instinctive and sympathetic phenomena; all these should be seized, appreciated, and referred to their true cause. When the value of these signs is not attended to, peculiar states are made of each of them, and a hundred times more false groups and false diseases are made out of slight inflammations that produce no fever than have been created out of those that do produce it. Imagine a circumscribed erysipelas, a slight boil, a small tumour in the lungs, in the digestive canal, in any hidden organ, you not think a state of suffering, of malaise, debility, emaciation, in short, some disturbance or other would ensue? There is no occasion for imagination: the thing frequently occurs. A number of incipient phlegmasiæ are not perceived, and these have been called latent: on this point science has made much less progress than on that of exalted inflammation producing the febrile state. Under this head come neuroses, cachexiæ, occult vices, humoral depravations and corruptions, all possible alterations, in fact, and of which authors have lost themselves in never-ending descriptions and gratuitous explanations, that have generated the mass of volumes which now crams our libraries.

The opening of bodies will lead to the explanation of all these phenomena; if it has not already done so it is because an ill use has been made of it. How have anatomopathologists reasoned? They have said, here is a degeneration that was unaccompanied by fever, an alteration of organs, an organic vice; this it was, and not the inflammation that produced the symptoms. Precipitate judgment! before the alteration of the organs could be effected, there must have been an intermediate something between it and the symptoms that should have led to a prescience of it, which intermediate was either an ascending phlegmasia or a descending one ill suppressed, fixed, long persisting, and which slowly enacted the disorganization. Herein you may see the origin of a vast number of false ideas and erroneous judgments with which medicine is still infested; in other respects I am willing to confess it has

followed a better path, but it has not made all the progress it should have done.

Our task now is to reduce these two orders of diseases—of these fevers and other groups of symptoms without fever—and to refer them to inflammation, their true cause. This reduction must be effected previous to entering upon the other alterations of the human body; we must first exhaust the list of what inflammation is capable of producing, before engaging in any thing else. But you will ask me, are all fevers to disappear from the stage? They will certainly disappear if I prove that all the groups of symptoms of the ancients are referable to imperfectly considered internal inflammations; should there be any that I cannot so reduce, they will be reserved, otherwise I see not why I should respect them; it would be a culpable weakness, and cowardly on my part, were I to hesitate to overthrow them in the fear of being considered an exclusive systematist, as I have so often been falsely accused of being; it is a question that *must* be attentively canvassed. For the rest, if all fevers are set aside, and inflammation alone left in their place, have no fear that the latter will be too simple: your intellectual acumen and mine will still have more to do than they can well manage, in estimating the value of symptoms, in appreciating the action of modifying means, in referring each kind of lesion to its true cause, in directing the treatment and dietetics, in determining whether to act or not against the disease, to leave it to itself, &c. &c. No, no, medicine will never be too simple, and may still be matter of labour to the most powerful intellects for many ages to come.

I have told you my method: if I stray from it remind me of it.

—o—

CODE OF UNIVERSAL GENERATION.

SECTION VIII.

Generation of Mammiferæ or Animals that supply Breast-milk.—Mammiferæ differ from all other animals, in producing offspring which they nourish with breast-milk. These animals have perfect organs of generation.

It is in the uterus or womb, a fibrous or muscular organ situated between the hip bones, and in the pelvis, in which the offspring of the mammiferæ are developed and nourished during pregnancy, while they acquire a degree of strength sufficient to enable them to enjoy an independent and individual existence. This organ is situated between the bladder and rectum, resembles a moderate sized pear, with its apex inverted; it is about two inches and a half in length in the unimpregnated state after puberty, its sides nearly an inch thick, and its cavity of an irregular form, sufficiently capacious to contain a blanched almond. It was compared to a bottle by the ancients, and said to

have an orifice (os uteri, os tincæ), neck (cervix uteri), a body (corpus), and a bottom (fundus uteri). Its fundus or broadest part is superior and towards the abdomen. The uterus may be said to be triangular, with its base upwards towards the abdomen, and its two sides descending so as to unite at its orifice, which opens into the vagina. In each of the upper angles there is an orifice of a tube (the Fallopian or uterine), while the passage in the neck of the womb, which opens into the vagina, is about an inch in length, and is so small as scarcely to admit a probe or crow's quill—in some cases no more than a bristle—and in those who have had children, a goose's quill, and sometimes a substance as large as the point of the index finger. The orifice of the womb has two lips, an anterior, which is the thicker, and a posterior. It is in general within from two to four inches of the external genital aperture. The neck and orifice of the uterus descend into the vagina about an inch. The upper tubes (Fallopian or uterine), are about three inches in length, extending from each angle of the uterus transversely; their extremities are loose and fringed (fimbriated), and are nearly in contact with the ovaries. The use of these tubes is to allow the male fluid, or a vapour arising from it, to pass from the womb towards the ovaria, which the loose extremity seizes during copulation, so that one or more vesicles, ova, or eggs, in this last organ may be vivified, and the new being conveyed into the womb. This fact has been attested by repeated dissections, by ligatures on the tubes in animals, and by tubal pregnancies. The external and internal organs are supplied by the same nerves, and are all excited by copulation. (For ample proofs of these facts, see editor's or other recent works on obstetrics).

The ovaries (testes muliebres, female testicles) are two oval flattened bodies, each of which is attached by a ligament to the uterus, beneath the orifice of the Fallopian or uterine tube. Each has a firm smooth covering, under which is a number of ova, eggs, or vesicles, varying from fifteen to twenty in number; some of these are very superficial on the surface, and are ruptured during a prolific copulation. According to late writers on physiology, one or more vesicles, after being impregnated by the male, are detached from the ovary, and leave a mark or cicatrix, which, from its yellow appearance, is called corpus luteum; but the experiments made by Haighton, Blundell, and many others as well as myself, prove that such marks may exist in virgins and animals that had never been impregnated*. Lastly, the vagina is that passage or canal which extends from the external genital aperture (vulva, pudenda &c.) to the womb. It is lined by mucous membrane, like all passages in the body, and

this is wrinkled in the virgin state, and the folds are called rugæ, which no longer exist after marriage, and especially after parturition. This canal has also a muscular coat, which enables it to dilate, so as to allow the passage of an infant, and to contract immediately after delivery to its ordinary size. This is an admirable precaution of nature, as it enables the sexes, if adults, to cohabit, however disproportioned in size, by using gentleness and caution. In some cases, however, the vagina is impervious both in its course and external orifice, and then, unless the defect be remediable by surgical operation, which it may or may not be, sexual intercourse cannot be accomplished. It could not be effected between an adult and a female child from the age of seven to ten or eleven years—indeed before puberty, when the sexual organs are developed, without more or less laceration. In some cases marriage cannot be consummated*.

If the vagina, uterus, uterine tubes or ovaries be diseased or destroyed, incurable sterility will be the consequence. The sexual apparatus of the male is composed of the following organs; 1, an external organ (penis, membrum virile), capable by venereal excitement to become enlarged, elongated, hard and firm (erected), so as to be suited to penetrate into the vagina; 2, glandular (organs, testes, testicles), destined to secrete a fluid, without which the ova, eggs or germs of the ovary, cannot be fecundated: this fluid is called the spermatic, seminal, or prolific fluid; 3, the canal from each testicle, which conducts the seminal fluid through the groin into the pelvis, and to the under surface of the bladder, where it is deposited in a sac on each side (vesiculæ seminales), in which it accumulates until the time of copulation; 4, two other canals or tubes, one from each seminal receptacle (ejaculatory ducts), whose use is to transmit the spermatic fluid into the urethra or genito-urinary passage in the penis, whenever it is ejected into the vagina or uterus. Thus the testicles prepare the spermatic fluid, the canals (vasa deferentia) convey it to the seminal vesicles or receptacles, these retain it until it excites amorous impulse, when the other canals (ejaculatory) transmit it into the urethra, and the urethra deposits it in the vagina. An impervious state of any of these canals is opposed to procreation, and thus in case of bad stricture fecundation cannot be effected.

The accumulation of the fecundating fluid in the seminal vesicles excites the whole genital organs in man, which cannot cease until the fluid is expelled. He then approaches the female of his species, and relieves himself by the act of reproduction.

* Professor Montgomery denies this.—*Cycl. Pract. Med.*

* See the chapter on Disqualifications for Marriage, Impotence, Consummation of Marriage, &c.

During this act, all his organs are excited, and the genital more especially, as these are supplied with the same nerves. The female organs are intensely excited, so that the moment the seminal fluid is deposited in the vagina, or according to some, in the uterus, whence it is conveyed to one of the ovaries, an ovum, egg, or germ is fecundated, and this is conveyed into the womb to be transformed into a living being. Such is the mode of reproduction adopted by nature for the perpetuation of mammiferæ and man, to which all hitherto stated applies, as well as that which will be mentioned in describing the development of the germ.

The womb acquires a high degree of sensibility from the moment of conception; there is a determination of blood to it, which, as in other cavities, enables it to throw out congluable lymph, to form a membrane which lines its interior and closes the orifices of the uterine tubes and mouth of the womb itself.

The impregnated ovum passes through the uterine tube against the newly-formed membrane (decidua), pushes it into the cavity of the womb, and becomes attached to it at a certain point. The germ is covered by a fine membrane of its own (amnios), and presents analogous phenomena to those we have described in the egg of the bird. The amnios contains a limpid fluid, in which the embryo swims. A spongy mass (placenta) forms between the membrane of the embryo and the womb, which transmits the blood of the parent through the navel string to the offspring. The blood is conveyed to all parts of its body, and is the cause of the growth of all.

When the fetus has acquired sufficient development, the womb contracts and expels it into the world. But this new-born being is so weak and feeble that ordinary aliments are incompatible with the delicate condition of its digestive organs. Nature finishes her work by supplying the breasts with milk, or that food which is most appropriate, and which the mother furnishes with zeal and delight. The human species often violate these sacred laws, which the Author of all things has engraved on the hearts of all the females of animals; but I shall fully comment upon this error when describing lactation.

Mammiferous animals do not engage in the act of reproduction until they are fully developed. This period is marked by an increased activity, fierceness, and unusual boldness, which is termed heat or rut, and this varies in different animals according to their size, mode of life, food, &c. Thus, it takes place at the second or third month in the mouse and other quadrupeds of this species, at the fifth or sixth month in rabbits, at the seventh or eighth in hares, about a year in dogs, a year and a half in foxes, about two years in wolves, about two years and a half or three years in mares, at the

third or fourth year in camels, at the seventh or eighth year in the stag, which we know lives a long time; and about the twelfth or fifteenth year in the elephant.

The females of animals are generally more precocious than males, and may reproduce about a year before these. It is well known to agriculturists, that the breed of cattle is very much improved by delaying reproduction until the parent animals are fully developed.

The season of heat or rut occurs at different periods of the year, and there is a fixed epoch for each species. Thus we observe it every year from November to April, in sheep; in the depth of winter in foxes and wolves, lasting about fifteen days; in October, for the same period, in roe-bucks; in autumn in bears; in January and February in cats, for fourteen or fifteen days; and from the end of March to June or July, in mares, &c. There are other animals which become in heat immediately after having suckled their young, as rabbits, hares, &c. In fine, there are some, as bears, camels, elephants, &c. that remain in heat for one or more years. Female animals are much more amorous than males. They have a viscid, bloody discharge from the vagina. This evacuation is not analogous to the menstrual discharge, during which there is no amorous desire; and the most abandoned of the female sex will object to the act of reproduction.

The season of heat excites singular phenomena in many animals, which proves the influence of love on animated beings. The most remarkable examples are stags, camels, elephants, and lions.

About the beginning of September the old stags become in heat. It commences with a kind of melancholy, which leads them to seek solitude at first; they walk with the head downwards, both day and night. In two or three days, they manifest an unusual ferocity; they attack man and all animals that come in their way. In five or six days afterwards, they pursue the hind in every direction, until they have completed the act of reproduction. The younger stags are less furious. The excess of their desires is manifested during the night, during which they fight with other animals, and sometimes receive mortal wounds. Entangled by the horns of their own species, it sometimes happens that wolves put an end to the combat by devouring them.

The rut of the old stags continues more or less for fourteen or fifteen days, and that of the young ones four or five. During this time, the hunters and dogs that attack them run the greatest danger, and often fall victims to their temerity, as these animals attack them with the fury of a lion. Both males and females exhale an odour which is so offensive to dogs, that they often refuse to pursue them.

The males are excessively ardent, and

sometimes copulate with fifteen or twenty females in succession.

Camels, which are remarkable for their fondness and docility towards their conductor, become indomitable and dangerous during the time of rut. This commences in spring, and continues for forty days, and so ferocious are these animals, that they attack lions, tigers, &c. It may be observed in this place, that the castration of males renders them timid and docile, and the flesh of those which are eatable much more delicious and easy of digestion.

Males in general are much more vigorous than females; a stag suffices twenty hinds, a bull double the number of heifers, a ram several ewes, and a stallion several mares. Thus polygamy, or one male to several females, is the established habit of this class of animals. The roebuck and whales are exceptions. They act in concert with one female in the propagation and education of their species. From the moment the female has conceived she refuses the male, and very rarely admits him, though there are examples.

Mammiferæ sometimes couple with individuals of another species, and give birth to beings of another character. Thus it is with the coupling of the horse and the ass, the ass with the mare. We know that the wolf propagates with the dog, and this last with the fox; the zebra and with the ass.

In all such kinds of reproduction it is necessary that there must not be a very great difference in organization, or they cannot take place. Thus we never see the horse produce with the heifer, the dog with the sow, &c.

The duration of pregnancy varies according to species in mammiferous animals. Thus rabbits and hares are with young for thirty or thirty-one days; cats fifty-six days; bitches sixty-three days; sheep and goats, five months; the hind eight months; the she-wolf three months and a half; the bear eight months; the fox from winter to April; the camel from one spring to another; the heifer nine months; the mare eleven months and some days; the elephants some years; the whale probably three or four years, for its offspring at birth is as large as an ox.

It is a general rule that the number of the breasts is double that of the young, but there are exceptions. The breasts are differently situated in different animals. When the term of pregnancy is completed, the females select a convenient place for themselves and their young, where they are delivered and deposit their offspring. All present their udder to their little ones, and these take the milk with avidity.

This class of animals, like insects, reptiles, birds, &c., shew the greatest maternal affection for their young. We observe it from the mouse to the large beasts in the forest, and to the sea monsters—we cannot find one female which does not bestow the greatest care and attention on her young, and which

is not disposed to defend them to death. The fever of maternal love with which she burns exalts all her faculties, supplies her strength, gives her invincible courage, and causes her to attack animals which very much surpasses her in strength. The cat will attack any dog or animal that approaches her young, no matter what be its size or strength. The bitch, at the approach of a furious wolf, does not desert her young, but remains to defend them, to combat and perish. We hear the bat, when deprived of its young, bitterly lamenting them.

Rabbits nourish their young for two successive days without searching for any aliment, and then they employ only a few minutes for this purpose. When the wolf and bear are on the point of becoming mothers they repair into the woods, select a place of safety, and defend their young with unparalleled intrepidity. In fine, these animals afford the human female the great example of maternal care and solicitude for her infant. They do not commit the physical education of their young to another, as if nature had indelibly engraven maternal tenderness upon the female heart, which no other being ever can feel or shew to offspring which is not her own.

—o—

DISEASES OF THE GENITO-URINARY ORGANS.

(Continued from p. 144.)

Enlargement of the Prostate Gland—Prostatitis.—Sir Astley Cooper, Sir B. Brodie, and others, are of opinion that enlargement of the prostate gland is caused by old age. This conclusion is, however, open to objection. Experience does not warrant this opinion, as daily observation proves to demonstration that a large proportion of aged persons are free from prostatic disease. It is very true that the disease is commonly observed in those who have indulged in profligacy and debaucheries, and who laboured under maladies of the genito-urinary organs; but a large proportion of mankind are free from such complaints. It therefore follows that prostatic disease is not an invariable concomitant of old age. Chronic prostatitis is slow, and hence it is seldom observed in young persons. The gland may be increased in size in a slight degree, but sometimes it acquires ten or fifteen times its ordinary bulk—according to Sir B. Brodie, the size of a goose's egg; to Hunter and Wickmann, the size of the fist; and to a child's head by Lloyd and Petit. Its increase in volume may occur in any part of it, and the alterations in its textures are various. It is sometimes scirrhus, at other times soft, fibrous, or cartilaginous; when incised presenting a whitish or brownish colour, and containing membranous septa. It may diminish the urethra by projecting into it, extend beyond the vesicula semi-

nales between the rectum and bladder. The eminence at the median union of the lateral lobes, erroneously denominated the third lobe by Sir E. Home, may enlarge to the size of a pullet's egg, obstruct the urethra, and project into the bladder, but it is of rare occurrence, according to Mr. Guthrie, as before stated, and seldom happens before the age of fifty. Langenbeck never found this lobe in the natural state of parts.—(Neuv. Bibl. 1818; see Bell's Surg. Observ. vol. i.) This tumour varies in size from that of a horse-bean to that of an orange, and one of the lateral lobes is often increased at the same time. At other times the enlargement of the gland converts the prostatic portion of the urethra into an irregular canal. Sir B. Brodie states that he has known the urethra to form in the gland a sinus capable of containing two or three ounces of fluid*. He also mentions that the prostatic portion of the urethra is elongated, and that there may be an increase in the length of the canal of two or three inches. The natural curve of the urethra is considerably increased. He thinks it a great mistake to apply the term scirrhus to this disease. "The chronic enlargement of the prostate may be said to be a disease of a peculiar kind, having no exact resemblance to what we meet with in any other organ. It may, however, in some respects, be compared to the chronic enlargement of the thyroid gland, known by the name of bronchocele. Like the latter, it is generally slow in its progress, and frequently, having reached a certain point, if proper treatment be employed, it remains almost stationary for many years; it has but little disposition to terminate in ulceration or abscess, and the symptoms to which it gives rise are, with few exceptions, to be referred to the influence which the disease exercises over the functions of the parts in the neighbourhood. There are but few individuals who, in the latter period of life, do not suffer some degree of inconvenience in consequence of the enlarged state of the prostate†." In some cases of this kind, the urethra is elevated towards the symphysis pubis, and this should be borne in mind in performing catheterism.

The prostate gland may be considerably enlarged without causing any unpleasant sensation, when by intemperance, exposure to cold, or gonorrhœa, retention of urine may suddenly occur, and then the real disease is accidentally discovered. In such cases the patient may be speedily relieved, and by caution, freed from another attack for a long time.

The first symptom of chronic enlargement of the prostate gland is, that the patient occupies more time than usual in evacuating the bladder, and this is generally the case

with persons advanced in life. The patient complains of dull aching sensation in the loins, extending round the hips, groins, and perinæum, and he has occasion to empty the bladder five or six times in the course of twenty-four hours, and in bad cases every hour or half hour. There is a sense of weight within the anus, as if there was a necessity to evacuate the bowels, and in some cases there are frequent erections, with slight pain extending along the urethra and the glans. These symptoms are aggravated by intemperance or sexual intercourse. In some cases this sense of aching extends along one urethra to the kidney, over the origin of the sciatic nerve. In some forms of the disease, the fæces are flattened by the pressure of the enlarged gland on the rectum. This was first noticed by J. L. Petit, but Bichat considers that the compression of the fæces by the sphincter ani will prevent it*. There may of course be enlargement of the gland, and this, projecting into the bladder, causes cystitis; and in such cases, there will be no groove on the fæces. Tenesmus, prolapsus ani, and hemorrhoids often exist. In such cases, where the disease is advanced, and the patient applies for advice on account of difficult micturition, it will be found that though he may have lately evacuated his bladder, on passing the catheter, full half a pint, or double the quantity will be withdrawn, and this will have an ammoniacal smell. We can easily account for this, when we remember that the enlarged gland may partially ascend above the orifice of the urethra, and allow the urine to accumulate behind it. The retained portion of the urine is decomposed, some of its salts fall to the bottom of the fluid, increase irritation, and form calculus. The quantity retained may amount to pints. The urine may be clear, whitish, or flocculent, or full of ropy mucus, according to the intensity of inflammation. It may be albuminous and resemble jelly. Sometimes the urine assumes a coffee colour when long retained, and gives rise to the suspicion that there is calculus in the bladder. But the history of the symptoms enables us to form an accurate diagnosis. The patient can jump, and ride on a rough road, which he could not were calculus in the bladder. According as the disease advances, there is more difficulty in voiding urine, and at length there may be partial or complete retention. This will take place if the patient retains his urine after he has a desire to pass it, when he is exposed to cold by passing from a warm apartment into the open air, or by discontinuing the use of flannel or other warm clothing in cold weather. It is stated by Sir B. Brodie, that retention from diseased prostate scarcely ever induces rup-

* Lectures on Urinary Diseases, p. 106.
† Op. Cit., p. 107.

* Œuvres Chir. par Desault Nouv. ed. par Bichat.

ture of the bladder; while Desault considered it more dangerous than when caused by stricture, and was of opinion that a perilous extravasation speedily follows, unless relief be timely afforded. The former mentions two cases, one related to him by Mr. Travers, which terminated fatally, having been preceded by prostration of the vital powers, a brown, and black tongue, and on dissection, the vesical mucous membrane was found separated, softened, and in some points in a state of slough; coma preceded death in these cases. When the urine is much impeded, the bladder contracts powerfully to expel it; sometimes makes spasmodic efforts, forces the mucous membrane between the intermuscular spaces, and forms sacs or pouches, the same way as in bad stricture. These sacs may be small or large, and may be as many as nine or more in number; they sometimes contain pus or urinary calculi. Chronic cystitis is often the cause of death. The muscular coat of the bladder is invariably thickened, as all muscles increase in size by unusual exertion. The ureters and kidneys become finally diseased, and in some cases the ureters remain unaffected under such circumstances*. The same author states that he had known an instance in which the urine was reduced to two ounces daily, and another of total suppression, in consequence of fungosities at the vesical orifices of the ureters. In the latter, the ureters were distended with urine. A case is related, in which the kidney was so distended as to fill the whole abdomen†.

According to modern writers, abscesses may form in any part of the prostate gland, and escape by the rectum or urethra. Desault held that the coverings of the gland and the subjacent cellular tissue were most commonly the seat of abscess. Sir B. Brodie describes cases in which the abscess was between the rectum and bladder, others in which it burst into the latter, and escaped by a catheter; while Mr. Wilson has known it burst near the caput gallinaginis into the urethra‡. The abscess may point through the perinæum, and several such cases occurred to Desault, and others were successfully treated by Mr. S. Cooper.

Ulceration of the enlarged prostate sometimes happens, and may be followed by a sparing or copious hæmorrhage. Sir E. Home relates one case of the latter description, and Sir B. Brodie has met with three, in each of which the bladder was completely distended. The cause of prostatic enlargement, according to Sir A. Cooper and Sir B. Brodie, is decline of life; to Desault, gonorrhœa; to Home, constipation and excessive

venery. It appears remarkable, that decline of life should cause enlargement of the prostate, and of no other gland in the body. The other assigned causes are much more reasonable, and I believe correct. It may be caused, according to Wilson, by external injury, and occur in the chaste as well as the profligate*. It may occur in early youth, as attested by Sir A. Cooper†, and, according to many writers, long before the decline of life.

Treatment of Enlargement of the Prostate Gland.—Great diversity of opinion exists as to the treatment of this disease. The majority of British writers consider that medicine has little or no influence, and that partial relief only can be afforded by surgery. Sir Astley Cooper‡, Sir B. Brodie§, Mr. S. Cooper||, and a host of others, are of this opinion, while the French writers assert that the disease may be cured when it is caused by stricture, as soon as the primary cause is removed¶. I believe the gland can seldom be reduced to its primitive size; but I cannot assent to the doctrine of Sir B. Brodie—"the prostate of a man advanced in life cannot be rendered like that of a young man, any more than his grey hairs can be converted into black**." This position rests upon the statement which, is by no means proved, that enlarged prostate is caused by the change of the constitution in the decline of life. If the other glands of the body were proportionately enlarged by age, then we might admit the above statement as proved; and if it was not known, that the largest chronic bronchoceles, the largest hepatic, splenic, and other morbid tumours, both soft and osseous, were not curable by the internal and external use of chemical preparations of iodine and its combinations. If enlargement of the thyroid gland, of the liver, of the spleen, of the testes, of the ovary, and of the knee and ankle joints, have been reduced to their primitive size, there is no feasible reason why prostatic disease should be an exception. That all the above enlargements have yielded to iodine, is amply attested by the reports in the British and foreign periodicals, and beyond the possibility of doubt; and if iodine can act on the brain in epilepsy, as supposed and believed by Dr. Elliotson and others, and on the liver, by being rubbed on the abdominal parietes, it follows that it would act on the prostate by being rubbed on the pe-

* On the Male Urinary and Genital Organs.

† Lectures on Surgery.

‡ Lectures on Surgery.

§ Lectures on Diseases of the Urinary Organs.

|| Surgical Dictionary.

¶ Dict. Abrege des Sciences, Med. Art. Urethrite.

** Op. Cit. 127.

* Brodie's Lectures, p. 121.

† London Medical and Surgical Journal, v. iii.

‡ On the Urinary Organs, &c.,

rinæum, introduced in the form of suppository or injection into the rectum, and in the latter mode into the bladder. These views were proposed and maintained by Dr. Ryan in his lectures on iodine*. He also contended, that if the ioduretted remedies were introduced into the rectum, and the patient placed on his face, with the head and shoulders elevated, they would be applied to that portion of the rectum contiguous to the prostate, and, in corroboration of this assertion, he stated, that great relief was afforded to a patient under his care, at St. John's Hospital, who had been previously under the care of Mr. Key, at Guy's. The pains about the hips, loins, groins, and perinæum, were much diminished by this plan, the gland was unquestionably reduced in size, the necessity to pass urine was much less frequent, but the patient declined to submit to the treatment at the expiration of three months.

With respect to ioduretted injections into the bladder, Dr. R. observed, that he saw no valid objection to them, but many reasons for employing them. He referred to the facts established by litholrity as to the safety of frequently injecting the bladder, the inevitable contusion or laceration of its mucous coat in some cases, and, in all instances, after the operation of lithotomy, and likewise that chemical solutions, much more stimulant than iodine, had been used with impunity. He went on to mention, that the ammoniacal urine of patients affected with prostatic enlargement was in all probability much more irritating to the mucous coat of the bladder, than such a weak solution as that advised by Lugol, if employed in these cases about the middle period of life, or even later, before the bladder was injured by the urine. He argued that, by injecting the bladder with the ioduretted solution, there would be this advantage, that the fluid would be in contact with the enlarged gland, or, at least, with that portion of it which might project into the bladder. He proposed to empty the bladder with the catheter, and then inject the iodine at the temperature of 98 degrees, unless there was such irritation present, as there is in some instances, which would, of course contra-indicate its employment while such a state continued. He had seen cases, in which the bladder could not be injected with decoction of marsh mallows before the introduction of lithotritic instruments; but, on the following day, the organ retained six or eight ounces of the injection. It was his opinion that, by judicious management, the bladder might, in time, be brought to retain the ioduretted solution for several hours. He finally declared it to be his intention to carry those views into effect, but whether he has done so or not, I am unable to mention.

He also thought that, if iodine could be applied to the urethral stricture before great induration took place, it might be highly beneficial. This proposal is certainly as feasible as the nitric acid injections subsequently employed in the same disease with success by Mr. Babington, at St. George's Hospital*. I may remark, that the foregoing views appear extremely plausible, but time must determine their validity. It would be highly gratifying to the medical practitioner were prostatic disease removable by medicine. All the remedies hitherto employed, such as mercury, conium, hydrochlorate of ammonia, burnt sponge, &c. &c. have repeatedly failed.

The treatment is similar to that for acute prostatitis, with the exception of venesection, which has been already described. In addition to this plan, blisters, issues, and setons, have been tried. Mr. Hunter found suppositories of opium, with conium and sea-bathing, very beneficial in one case; the pains were diminished, and the size of the gland reduced†.

Heberden employed conium and bark, Valentine cicuta, which Sir C. Bell found useless. Fischer and Kunzmann proposed hydrochlorate of ammonia as a certain remedy, in the dose of a drachm twice a-day. This medicine failed in the hands of others. Girtanner stated that burnt sponge afforded considerable benefit. But of all remedies, mercury, with repeated catheterism, or rather the latter alone, is productive of most relief.

Prostatic enlargement has hitherto ranked among the opprobria of the healing art. It seldom fell under the notice of the physician or surgeon until it was considerably advanced, and impeded the flow of urine. Whenever partial or complete retention happened (and there is unfortunately no immunity at any period of the disease), medical aid was requested. Let us suppose a case of complete retention of urine. Most surgeons endeavour to pass a catheter, and if they fail they open a vein in the arm, apply leeches to the perinæum, or cupping on the loins, open the bowels, and order the patient to be placed in a warm bath. It sometimes happens that these measures enable the sufferer to evacuate the bladder, but they much more frequently fail. When they succeed, Sir A. Cooper thinks the following draught the best preventive of a return of the retention. *Rx.* bals. copaiiæ, liq. potasse, ãâ, *m. v.*; mist. camph. $\frac{3}{4}$ iss. But when the bladder is not relieved, then recourse must be immediately had to catheterism. The profession is divided with respect to the kind of instrument to be employed. Sir E. Hume recommended a polished elastic gum

* London Med. and Surg. Journ. 1833, vol. iv.

* Lond. Med. and Surg. Journ. 1833, vol. iv.

† On the Venereal.

catheter which retained its curve, which was invented by Weiss, of the Strand. Such an instrument should be retained in the bladder until the retention is obviated, and the prostatic disease somewhat diminished. Sir E. Home condemned silver or metallic instruments, though Desault recommended them. Sir B. Brodie prefers an elastic*, and Sir A. Cooper a soft metallic instrument†, as it can be curved down before the scrotum, and a plug placed in its extremity, so that the patient may walk about and evacuate his urine whenever he has an inclination. This kind of catheter should be new, and never left in the bladder longer than a fortnight, as the urine acts upon the metal, renders it brittle, and likely to snap across.

In passing a catheter in disease of the prostate, there is no difficulty encountered until it reaches the curve made by the enlarged gland; and to obviate this, the handle of the instrument is to be slightly raised, so that the point may pass through the curved part. The handle is now to be depressed between the thighs so as to cause the point of the instrument to rise perpendicularly above the pubes. In some cases the index finger of the left hand must be passed into the rectum to guide the point of the instrument. A pressure must be made on the perinæum so as to compress the concavity of the instrument against the pubes. The greatest care is necessary in performing catheterism when the prostate is much enlarged, on account of the danger of making a false passage. It often happens that a gum elastic curved catheter with a stilette, will enter the bladder on withdrawing the latter. This is the kind of instrument most strenuously advised by Sir B. Brodie in his recent work so often quoted. He advises that the stilette should be a strong iron wire, having the curve of the silver catheter. With such a stilette, a gum catheter is as inflexible as a silver one. Sir B. Brodie also uses a gum catheter without a stilette; and should this fail with one, he advises the handle of the catheter to be kept close to the left groin. He passes the instrument as far as possible in this position, then brings the handle forwards nearly at a right angle to the pubes, and not elevating it towards the patient's navel. The handle is depressed gently and slowly between the thighs. In general the point now passes into the bladder; but sometimes this does not occur until the stilette is withdrawn, in doing which the catheter slides into the bladder. When the urethra is irritable or liable to spasms, Sir B. Brodie passes a gum catheter as far as possible, in general to the prostate, and then introduces the stilette through the instrument, which will direct its point through the prostate. This method may however fail. The

catheter should fill the urethra, and when passed into the bladder, it ought, in the majority of cases, be allowed to remain there.

When there is difficulty in passing the instrument, common sense, as well as science, shows the impropriety of withdrawing and after a short time re-introducing it. By leaving the instrument passed, the urine is not allowed to irritate the diseased prostate, and this is most favourable to the effects of remedies for its reduction, so far as this can be accomplished. Repeated introductions, or attempts for that purpose, would excite irritation, and aggravate the disease. The instrument should be withdrawn after the lapse of twelve or fifteen days, for the purpose of being replaced by another instrument. Desault has well observed that there is no rule as to the time the catheter is to be left in the bladder; when there is little difficulty experienced in passing it, there is no occasion to leave it in the bladder, but re-introduce it two or three times a day, according to the urgency of symptoms. When enlargement of the prostate with retention comes on suddenly, the patient generally regains the power of evacuating the bladder at the expiration of three or four weeks; but if the disease has come on slowly, he never regains it completely. When the prostate becomes enlarged in consequence of stricture or gonorrhœa, it will speedily yield to antiphlogistic treatment so soon as the diseases that excited it are cured*. But in cases in which catheterism cannot be performed, and when there is complete retention of urine, what is to be done? According to Sir E. Home, who gives Mr. Hunter as his authority, the catheter should be gradually forced through the prostate. The bladder of a patient so treated by these surgeons, is to be seen in the Museum of the Royal College of Surgeons. Sir B. Brodie has performed this operation successfully, and recommends it. His patient ultimately regained the power of evacuating his bladder, so as to dispense with the use of the catheter. The size of the prostate renders puncture of the bladder through the perinæum or rectum impracticable. In some cases it will be necessary to pass the catheter six or eight times in twenty-four hours, and under such circumstances the patient ought to be instructed to perform the operation himself. Every scientific surgeon is well aware that if immediate relief is not afforded when there is a desire to pass urine, the irritation of the prostate will extend to the bladder, ureters, and kidneys, cause inflammation in these parts, or predispose to the induction of urinary calculus. These diseases will be delayed, if not prevented, by leaving the catheter in the bladder, or by frequently introducing it. When

* Lectures on Diseases of Urinary Organs.

† Sir A. Cooper's Lectures on Surgery.

* Dict. abrégé des Sciences, Méd. Art. Uretrite.

the patient is able to use the instrument himself, he passes through the remainder of life with comfort, and with scarcely any suffering. When, on the other hand, the bladder becomes diseased, we must employ the ordinary remedies—hyoseyamus, camphor, alkalies, lime water, liquor potassæ or mineral acids, uva ursi,* buchü cubebs, pa-reira brava, &c. When the urine deposits an acid sediment (lithic acid), the alkalies are highly beneficial; when a white sediment (the phosphates), the acids are indispensable.

When there is ulceration of the prostate, the catheter may be left in the bladder, and opium used freely in clysters and suppositories.

Hæmorrhage may occur in such cases to an alarming extent. Sir B. Brodie describes an example in which the bladder became so much distended with blood, that it was felt as high as the navel. He bled the patient, used various astringents, but all failed, until ordered Ruspini's styptic, which succeeded. He passed a catheter into the bladder, and injected a quantity of warm water with a syringe, which dissolved a portion of the blood, and by repeating this with caution, and without exciting hæmorrhage, and continuing it for forty-eight hours, the bladder was completely emptied. The patient lived for a year and a half afterwards.

When the urine is albuminous, there is reason to conclude that there is disease of the kidney. This is the general opinion; but it has been lately stated in the Medical Society of London, by Dr. Graves and others, that this condition of urine may exist independently of nephritic disease. I believe, however, that the former opinion is often correct.

Foreign Medicine.

Microscopical Curiosities.

M. EHRENBERG, of Berlin, lately sent a collection of the above to the Institute of France, accompanied with a paper, descriptive of the best means of preserving them after study and comparison. By rapid desiccation on small plates of mica, he has succeeded in forming a collection of nearly three hundred different species of infusoria, mostly belonging to those he has already published, and to other microscopic substances. These objects are arranged on small plates, like those long used in microscopes for examining butterflies' wings, &c. He has not only preserved the form and colour of the armed rotatoria and bacillaria, but also of the softest and

most delicate rotatoria and palygastrica, those even belonging to the family and genus monades. He has preserved the tissues of plants, spermatozoæ, and cercaria, the different kinds of blood globules, together with their nucleus, the lymph, chyle, and milk globules, the nervous capillaries, &c., of a great number of animals and man. The author concludes by expressing a hope that the examination of these preparations will in future prevent any one from denying the possibility of preserving microscopical objects, the more as the difficulty of their preparation is extreme, and he calls upon other observers to do as he has done—collect and preserve—so that others may benefit by the preparations, and not take facts on mere hearsay.

Febrifuge Wine.

A. M. Blymie recommends the following formula in cases of intermittent fever, and vouches for its efficacy.

Red cinchona bark, 4 drachms.

Muriate of ammonia, 4 do.

White wine, 1 imperial quart.

Infuse during twenty-four hours; the dose is four ounces in the morning, fasting, and the same quantity at bed-time: it should be continued until the above quantity is finished, nor should the treatment be suspended on the days when there is no fever.

—*Journal de Pharmacie, September.*

Mode of extracting small pieces of Iron from the Eyes.

M. Krimer has for a long time successfully used the following means for the above purpose. He mixes twenty drops of muriatic acid into two ounces of rose-water and a drachm of mucilage, with which he bathes the eye: the muriatic acid will thus dissolve tolerably large pieces of iron. After which the eye is to be washed with milk and a cold compress kept on it for a few hours, to prevent inflammation.—*Hufeland's Journal.*

Difficult Menstruation cured by Amputation of a portion of the Cervix Uteri.

A well made woman, aged twenty years, who had experienced no previous inconvenience from her genital organs, began to complain of weight about the rectum, pains over the pubis, dragging pains of the thighs, palpitations, &c. which after continuing for

a week left her. These symptoms were evidently the *molimina menstruationis*, and they returned every three weeks, without, however, any flux of the menses. She became worse and worse, and was advised to get married; she did so, but no change for the better appeared; she experienced neither pain nor pleasure in coition. At length she was examined, when the hymen was found as high as two inches up the vagina, pierced only by a very small orifice; the os uteri was wanting; the uterus, examined per anum, and over the pubis, was found to have acquired the size of a large pear, was hard, immoveable, and very sensible to the touch. The hymen was divided. A puncture was made, and a quantity of black, syrupy blood flowed; the uterus fell in volume, and the patient was considered cured. Three weeks after, the same symptoms reappeared; the punctured point was closed, and the incisions of the hymen cicatrized. Upon this, M. Krimer resolved to take away the whole vaginal portion of the uterus, and did so two days before the expected return of the menses. Immediately after the operation there was free access for a sound to the uterus, and the menses flowed abundantly forty-eight hours afterwards. During the last nine months the female in question menstruates regularly and without pain.—*Hufeland's Journal*.

Alterations in the Milk.

M. Peligot has examined the milk of several asses, drawn under various circumstances. His conclusions are:—

When the milk is divided into portions, the first one is richer than the second, and this than the third; the difference being as much as 2 per cent. of dry matter.

Retention in the breasts impoverishes the milk, which loses from 4 per cent., or one-third of the whole solid matter.

Animals fed on carrots presented the colour of the vegetable in their milk. A strong dose of chloruret of sodium was partly appreciable in the milk, but the soluble sulphates were not so. Iodine and its preparations is perceptible in the analysis when they have been taken. Mercurial preparations have occasionally been administered to asses for the purpose of treating venereal children with their milk, but no traces of the mineral can be traced in the latter fluid.—*Journal de Chimie Medicale*.

Use of the Nasal Fossæ in the Production of the Voice.

In the Archives Generales for August is a paper by M. Valleix on the above subject, in which, after passing in review the opinions entertained by Gerdy, Malgaigne, Riche-rand, Berard, and Magendie, he comes to the following conclusions:—

1. The chief part in the propagation and modulation of the voice is performed by the larynx and mouth. The thoracic cavity evidently conduces to the reverberation of sounds. The mouth acts as a vocal aperture (*porte-voix*) that can be diminished or increased at will.

2. I would compare the nasal fossæ to a kind of reserve canal (*canal de fuite*) for the exit of the air that is not required for the buccal conduit. The air always traverses them in variable quantity, as does the expired air.

3. It is only occasionally that the nasal fossæ vibrate so as to influence the calibre of the voice; for this purpose it is requisite that there should be more air than can traverse them with ease. This effect is more readily produced in the pronunciation of the nasal words, and less so in others—hence M. Gerdy thought that air and sound only pass through the cavities of the nose from time to time.

4. When sonorous undulations are introduced into the nasal fossæ in sufficient quantity to be modified by them, the latter are to be regarded as a vocal aperture, the pavilion of which is or is not closed; their parietes then vibrate, but these vibrations have a disagreeable character, constituting snuffling (*nasonnement*).

5. If the nasal cavities are completely op-pilated, the voice has a peculiar character, that has been improperly compared to snuffling.

Remedy for Sea-Sickness.

A M. Fischer recently demanded the au-thorization of the Academie de Medicine for a remedy for sea sickness; it is composed of the seeds of one of the strychnos family and the fruit of one of the *menispermæ*, and the doses are homœopathic. The Aca-demy refused to sanction it, not because it was useless, but because the inventor would immediately make use of their name in vending it.

Preparations of Silver in Syphilis.

Professor Serres, of Montpellier, has lately been using these preparations with the happiest results, in the most old and inveterate cases of syphilis; he administers the chloruret of silver and ammonia, the oxide of silver and the metal itself in raspings. His account of the trials made with the above has been presented to the Academie de Medecine; and he promises further information on the effects of the cyanuret and ioduret of silver, of which he is at present making essay.

New Acid—Nitro-sulphic.

This acid, recently discovered by M. Pelouze, is composed of azote, sulphur, and oxygen, and is obtained by bringing into contact the deut-oxide of nitrogen and an aqueous solution of sulphate of ammonia. The salts formed by it, an account of which has been transmitted to the Academie des Sciences by the discoverer, are called nitro-sulphates; the nitro-sulphate of ammonia is that whose properties he has more particularly investigated.

Hereditary Hemorrhagic Diathesis.

On the 4th of August, Laroche, a man 41 years of age, entered la Pitié. On the right side of the abdomen he has a tumour, extending from the centre of the eleventh rib obliquely forwards to the superior iliac spine; it is six inches long, three in its broadest part, and two inches in height above the abdominal surface; the skin covering it is slightly blue, and about it are some ecchymoses. Five days before entering the hospital he had struck his side against the door key; pain and swelling ensued, the latter gradually increasing; three days after the appearance of the tumour, the debility became so great, that the patient fainted on the least exertion. The diagnosis, therefore, went to pronounce it a sanguineous tumour, situated in the abdominal parietes.

The 5th. The pulse is small and rapid; ice to the tumour; soup diet. The 6th: tumour increased; the skin over it is dark purple; the patient is too weak to speak—only answers by signs. The 7th and 8th: cold sweats, imperceptible pulse; danger imminent; ice continued. 9th: weakness

less; and from that to the 16th, his general condition and pulse improved.

On inquiry, it was found that from his childhood he had been subject to very frequent bleedings from the nose. At his twenty-fifth year the epistaxis was replaced by bleedings from the gums, which came on four times in the year, and continued for several weeks. At thirty-four the gums ceased to bleed, and hematuria supervened, and continued up to the time of his entering the hospital, for the night before he arrived he had had a copious flux of blood from the bladder. From his thirty-fourth year he had been also subject to bloody infiltration of the cellular tissue of the trunk and limbs, and twice previous to entering the hospital, he had exhibited sanguineous tumours on the abdomen. So readily does this infiltration take place in him, that in April last, a little girl having pressed her elbow on the outside of his arm, an enormous swelling appeared, and extended to the arm-pit: from all that could be gathered, it was a sanguineous one, which disappeared by rest, but left a numbness of the fingers of that hand. The slightest blows made him bleed under the skin, and he is covered with black and blue marks. From his twentieth year he had been subject to arthritic swellings and rheumatic pains, for which leeches were several times applied, but they caused frightful hemorrhage, and it was always necessary to cauterize the bites.

The parents of Laroche are still living and healthy, and though they have always led a laborious life, have never been subject to hemorrhage; but his mother, who is seventy-five years old, states that one of her uncles died of hemorrhage, but from what part she cannot say; she also recollects that one of her brothers, who was subject to bleedings from the gums, died about fifty years ago, at la Charité, in consequence of the extraction of a tooth, the bleeding from which could not be stopped: he was only seventeen years old at the time. She says that she has had eighteen children, fifteen of which died before their third year. Fourteen of these had no hemorrhage, but she cannot state by what they died—she says the blood suffocated them (*le sang les étouffés*). The fifteenth was a female, and died in the sixth week, by an hemorrhage from the vulva.

The boys grew up, and were all subject to profuse bleeding from the nose, and on the smallest prick; one of them died from croup in his ninth year. In the course of the croup, the scalp became infiltrated with blood, and caused the head to increase to an enormous size. The other, in his sixteenth year, received a blow on the calf from a cutting instrument, and whether it was that the posterior tibial and peroneal were wounded, or the capillaries only divided, the hemorrhage was so profuse, that it was judged necessary to tie the crural artery; he died at the Hôtel-Dieu, from consecutive hemorrhage. The third surviving child is the patient in the present case; he is married, and the father of three girls and a son, none of whom are possessed of their father's diathesis. It may be remarked that this diathesis was transmitted to the males alone, by the maternal side.—*Journal Hebdomadaire.*

—o—

Reviews.

Digest of the Evidence given before a Committee of the House of Commons.—Extent of Intemperance in the United Kingdom. By John Edgar, Professor of Divinity in the Royal College of Belfast. 12mo. pp. 192. London: Bagster.

THIS little work is ably condensed by Professor Edgar, and deserves an attentive perusal. It shews the immense extent to which intemperance has extended in this kingdom, and its baneful influence on society and mortality. The work is published by the British and Foreign Temperance Society, and for the charge of one shilling.

It portrays the evils of intemperance in all rank of life, but more particularly that caused by the abuse of ardent spirits. It shews, by unimpeachable evidence, the increase of crime produced by it of late years, and the numerous evils inflicted on society. Admitting all this, we cannot agree with the witnesses that ardent spirits alone are the hydra-headed monster, and that intoxication by wine or other fermented liquors is not equally injurious and demoralizing. Recommending our readers to peruse the work, we shall insert the medical evidence only, and leave them to criticize it.

“An abstract of Dr. Farre's evidence has

been already published. The following is Dr. Gordon's evidence, except the part relating to remedies:—

“2305. In your capacity as Physician to the London Hospital, has the number of diseases caused by the use of ardent spirits been the subject of your observation?—Yes, it has been particularly so.

“2306. Will you have the goodness to describe to the Committee about what proportion of the cases which come under your observation at the London Hospital are occasioned by, or connected with, the use of ardent spirits?—My attention was called to it some time ago, at the time I was assistant physician to the hospital, and was in the habit of seeing the out-patients to the amount of some thousands, probably, in the course of a year. In conversation with a friend who felt an interest in the subject, I had occasion to remark that the proportion of diseases which was distinctly referable to ardent spirits, might be 25 per cent. My friend hesitated to admit the correctness of so large an average, and in consequence I kept an account for twelve months. I need not say that the result was not a mathematical truth, but merely an approximation, and even with this reservation I am almost afraid to announce to the Committee the result—it amounted to 65 per cent. upon the whole amount of diseases, and at the same time I made every possible allowance that I could, and even struck off part, wishing to look at the subject fairly. The result was 65 per cent. upon some thousands.

“2307. When was that?—Within three or four years, and I have tried the same again and again on a smaller scale.

“2308. What is the result of your general experience?—The result of my general experience, as physician to a large hospital, is as I have stated.

“2309. Your subsequent experience is confirmatory of that remark?—My subsequent experience induces me to say a larger number. My average came to 75 per cent.; but I have stated 65, so that I might not overstep the bounds.

“2310. What classes in society did that examination extend to?—Necessarily the lower classes; but still comprehending a number of very respectable persons, such as journeymen, workmen, &c.; but generally the lower classes.

“2311. Is there any observable difference between the state of diseases produced by the habit of drinking spirits and that of drinking wine?—Yes, very great.

“2312. Will you describe what that difference is?—My belief is, that ardent spirits have a direct and specific influence upon the liver. Excess in any thing is bad; but I do not believe, as far as my observation has gone, that a very considerable quantity of wine will produce the same injurious effect as a very small quantity of ardent spirits.

"2313. Upon the liver?—I will say upon the constitution generally. When I was studying at Edinburgh, I had occasion to open a great many bodies of persons who had died of various diseases, in a population (as honourable members will bear in mind) much more renowned for sobriety and temperance than that of London; but the remarkable fact was, that in all these cases there was more or less some affection of the liver, and I account for it by the fact that these moral and religious people were in the habit of drinking a small quantity of spirits every day, say one or two glasses. They were not in any shape or form intemperate, and would have been shocked at the imputation. I had subsequently the opportunity of confirming my observation in the West Indies, where the practice prevails of taking small quantities of spirits, not at all amounting to intoxication; but in all these cases there was more or less some affection of the liver.

"2314. Has it any effect also, different from that of wine, in affecting the brain and producing insanity?—It acts distinctly on the nervous system, and produces a train of nervous diseases, to which of course insanity must be referable. There is another disease to which the use of spirits gives rise, of which the public in general have very little idea; I mean dyspepsia. The general impression is that dyspepsia is a disease of riches and luxury; whereas the truth is, that dyspepsia has become the common disease of the poorer classes, produced entirely by the practice of sipping constantly and habitually small quantities of spirits, for which so many facilities are afforded.

"2315. Will you state to the Committee your opinion as to the effect upon the constitution, of spirits taken in early life by children; has it not the effect to impede the growth, and prevent the development of the muscular powers?—Certainly, to a great degree. I have no doubt the use of spirits in children produces disorders of the nervous system, of the spine, and of the mesenteric glands.

"2316. Are not mothers, in the lower classes of life, in the habit of giving spirits to their children to keep them quiet?—I believe so. On Sunday week I was sent for into Essex, and I had occasion to pass as early in the morning as 7 A.M. along the Mile-End Road. The place was crowded, and all the gin-shops were open. In endeavouring to classify the different persons, I was horrified at the respectable appearance of many of the women and children who were coming out of the gin-shops wiping their mouths, and who had evidently been drinking; people who would not, I should imagine, from motives of decency, have gone into a public-house where they must have remained a certain time.

"2317. Is the habit of drinking ardent spirits more difficult to cure or to reclaim

than the habit of drinking wine?—Doubtless. I believe, speaking as a medical man, and as having paid some attention to the subject, that a man may confine himself to a moderate portion of beer, and a moderate allowance of wine, as daily experience shews; but I believe it is utterly impossible for a man to confine himself to a moderate quantity of spirits.

"2318. Is it because the appetite it creates requires a greater amount of stimulus to sustain it?—It is precisely like opium, or any other stimulus. When you apply to an exhausted or fatigued stomach a small proportion of stimulus, the stomach speedily requires it again, but it requires it in an increased proportion. I could mention a very remarkable instance, occurring in my own experience, as illustrative of that point. I was requested to see an individual who was supposed to be deranged; but, on visiting him, I found he had delirium tremens, a disease which is the peculiar product of drunkenness. Upon stating the fact to his family, they remarked that it was utterly impossible, for that he took two glasses of sherry at his dinner, and never tasted spirits. It afterwards appeared, upon inquiry, that the individual, who was in one of the public offices, had been frightened at the idea of cholera, and being told that brandy was the best preventive, he had, on coming to town to his office, taken a minute quantity of brandy, never taking it at home or to excess; but he so acquired the habit of taking a little every day, that he could not dispense with the stimulus. In six months he was attacked with delirium tremens, and narrowly escaped with his life.

"2319. You have stated that a person might take a large quantity of wine without prejudice, but not a small quantity of spirits? My observation was, that though excess in any thing is bad, I believe a large quantity of wine is less injurious than a small quantity of spirits.

"2320. Is there not a good deal of spirit in wine?—Yes; but it produces a very different effect in that state of combination. Probably the best answer to the question would be the well-known chemical fact, that in some of the domestic wines there is a much larger proportion of alcohol than in the foreign wines in common use, but it is in a state of combination, and produces a different effect.

"2321. Are you of opinion, that the use of ardent spirits benefits any one besides the distiller and the spirit merchant?—I should say the doctor, but nobody else.

"2322. What do you think of altogether prohibiting the distillation of ardent spirits from grain?—In a medical point of view, I wish there was no ardent spirits; of course, in a political point of view, I am incapable, from the nature of my studies, of answering the question.

"2323. Will you have the goodness to

state your opinion upon that question in a medical point of view?—Of course there are states of the system, and there are peculiar diseases, in which spirits form a part of the medicines that are used; but my employment of them, I confess, is very limited, and I do not think the loss of them would be very severely felt.

"2324. In the early part of your evidence you stated you opened more bodies whose livers were affected by the use of ardent spirits than by any other disease?—I did.

"2325. Of what class?—Generally the lower classes. Of course there would be nothing new in the observation, that a large quantity of spirits taken habitually would produce diseased liver; but my observation tended to this, that even among people of moral and religious habits, I have been struck with observing the universality of the fact, that even where they were in the habit of taking one or two glasses of spirits and water, and not drinking any thing else, disease of the liver occurred as the result. Now I have not found such to be the fact universally with respect to wine; and coupling this with other observations I have made, I think I am justified in drawing the inference that the use of spirits will lead to more chronic diseases, such as dyspepsia, than wine.

"2326. After the high duties were laid on wine, during the war, and the use of spirits increased in consequence, were not diseases of the liver more prevalent?—I should conceive that diseases of the liver are infinitely more prevalent among the lower classes now than ever they were.

"2327. And indigestion likewise?—Yes; indigestion is quite a new disease amongst the lower classes.

"2328. Do you attribute the introduction of it to the use of spirits?—Yes, I attribute it, as a physician, to the facility which the poor people possess of procuring, without loss of time, without inconvenience, and without shame, day and night, Sunday and working-day, any quantity of spirits. I was going to remark that the tenor of my evidence was this, that however horrible drunkenness is of itself, yet drunkenness produces its own peculiar diseases and effects. A man who goes into public-houses loses his time, gets drunk, and suffers miserably for it; but, as an hospital physician, I have the power of observing daily that the much smaller consumption of spirits, that habitual sipping and toping which takes place in gin-shops, produces diseases no less fatal and destructive of life.

"2329. May not the alteration of the food of the lower classes have increased the disease of dyspepsia?—The effect of drinking spirits is to destroy all desire for food; a man who drinks spirits never eats.

"2330. Does that disease extend to those who drink beer?—Not to the same extent, except perhaps among the coal-whip-

pers in the neighbourhood of London; they are paid at the public-houses, and are obliged to drink large quantities of beer, and they eat very little.

"2331. They drink a large quantity of spirits also?—Yes; but I know they drink a large quantity of beer. In the London Hospital we necessarily, from our proximity to the river, receive a great number of these individuals, and the mortality among them is frightful. The moment they are attacked with an acute disease, they are unable to bear depletion, and they die directly.

"2332. With reference to the effect you attribute to ardent spirits on the liver and other vital functions, have you any knowledge of its being adulterated, as sold in the dram-shops, with deleterious ingredients?—It would be difficult to find a more destructive poison than ardent spirits; anything that diminishes the strength of spirits would, I conceive, render them less injurious.

"2333. In your opinion is the use of ardent spirits medicinally necessary in any case?—You are aware there are many remedies of great efficacy and power which yield their active principle to spirit, and therefore, in the preparation of many tinctures and other medicines, the use of spirits is advisable. I confess that as remedial agents, I very seldom employ spirits. I will go further, and say, that in the London Hospital, where I have the most unbounded power to order brandy or wine, I use wine freely and liberally, but I never by possibility order brandy. In the case of a man who may die in two or three hours it gives a momentary fillip, but I cannot charge my memory with any medical case in which I found its use indispensable.

"2334. Is it your opinion that some practitioners use spirits more freely than necessary?—That would be quite a matter of opinion. At a consultation probably I should object to their employment, from the particular views I entertain.

"2335. As far as you know of the practice of others, you recommend spirits less frequently than other practitioners?—I have no right to say that.

"2336. Have any cases of injury to the system, by the excessive drinking of ardent spirits, in the persons of young children, been brought to the London Hospital?—They would not come under my immediate cognizance. I know that there have been instances of that kind among the poor; I have no hesitation in saying there have been cases of diseases in children produced by ardent spirits.

"2337. Children of what age?—Five or six years of age.

"2338. Is the administration of small quantities of spirits to children destructive of the mental as well as the physical powers?—Necessarily so.

"2339. You spoke of various classes of tradesmen who were brought to the London

Hospital?—The lower classes chiefly; I should hardly say tradesmen.

"2340. Journeymen in various trades?—Yes, and workmen in general. Another disease has remarkably increased within the last few years, from the perpetual habit of drinking spirits among the poor, namely, diseases of the heart.

"2341. Will you have the goodness to make any other observations that occur to you?—The whole tenor of my observations would show that, leaving drunkenness out of the question as a destructive vice and entailing its own punishment, still that practice, which is not supposed by the world in general to be injurious, namely, the frequent consumption of a small quantity of spirits, gradually increased, is as surely destructive of life as more habitual intoxication; and therefore, the gin-shops are spreading diseases and death to a degree that is frightful.

"2342. What is the effect upon the heart from drunkenness?—It diminishes the nervous power of the heart, disturbs the circulation, and gives occasion to all other diseases.

"2343. A strong opinion has been expressed by several witnesses before this Committee, that, in order to check the evil, distillation, except for the purpose of medicine or manufacture, may be altogether put a stop to; do you think such a measure practicable or desirable?—I can only answer, that provided the wants of my own profession are attended to, I can see no possible objection to it, with the peculiar feeling I entertain of the use of spirits.

"2344. There is no objection, medically or morally?—Certainly not.

"2349. Are you aware in some parts of the kingdom intoxication prevails to a great extent by means of beer alone?—I have heard so.

"2350. Where that does prevail, it is as necessary for the medical man and the moralist to guard the poor against beer as against spirits?—I should think it is; but I am bound to say that in London I have not seen the same bad effect produced from beer, and I always make the distinction that there are thousands and thousands who confine themselves to a pint or two of porter a day, but I am morally certain there will not be found in London a man who will for any time confine himself to one glass of spirits a day.

"2351. The kind of beer that is used in London is different from that which is used in the country?—Yes, it is a less acid beer, and is more wholesome.

A Manual of Pathology, containing the Symptoms, Diagnosis, and Morbid Characters of Diseases; together with an Exposition of the different Methods of Examination, applicable to Affections of the Organs contained within the Head, Chest, and Abdomen. By L. Martinet, D.M.P., Translated, with Alterations and Additions, by Jones Quain, M.D. Fourth edition, revised and enlarged. 12mo. pp. 443. London: Simpkin & Co. 1835.

THIS work has done a vast deal of good in diffusing sound pathology and diagnosis. It contains a concise view of the present state of this branch of medicine. The favourable reception it has received in this country is the best proof of the high estimation in which it is held. Many parts of it are recast, others augmented, and much new matter added to it by Professor Quain. It is a work that ought to be in the possession of every medical student and practitioner.

Though Dr. Martinet's Pathology is a complete work, it ought to be accompanied by his Therapeutics, which are also translated into our language. It may be a matter of taste to refer to the others successively, but it would be much more convenient to the reader if each section on pathology was followed by the therapeutics. We suggest this to Dr. Quain, and hope that in a subsequent edition he may act upon it. We can see no objection to his translating and augmenting Dr. Martinet's Therapeutics, though there is an English version of it before the world, and by adopting this plan he would render the principles and practice of medicine an essential service. Both works would make a moderate-sized volume, and combine subjects that are generally united.

—o—

The London Medical AND Surgical Journal.

Saturday, September 26th, 1835.

—

SUPPRESSION OF QUACKERY.

Ambubaiarum collegia, pharmacopolæ,
Mendici, mimæ, Balatrones: hoc genus
omne. HORACE.

—

ONE of the most difficult questions connected with medical reform is, whether quacks, druggists, and other unqualified

persons ought to be prohibited from practising medicine. Arguing on the ground of expediency, there can be but one answer—that it is highly injurious to the community that the exercise of so difficult an art, and one requiring so extensive a range of knowledge, should be committed to individuals who, having given no proofs of their proficiency, must be presumed to be ignorant; but this question may be viewed in another light, and it may be asked, is it consistent with the free spirit of British legislation to control his Majesty's subjects in the choice of their medical attendant, or to prevent any man or woman from prescribing for another with the consent and at the desire of the latter? Considering the subject in the abstract, we conceive that the answer would be favourable to the unlicensed practitioner; but, as matters actually stand, there is a very important circumstance to be taken into account, namely, that in most instances the quack, or practising druggist, is committing a fraud upon the less informed portion of the public, by allowing himself to be confounded with the regular profession. The lower orders of people do not understand the organization of the profession; they call every body who practises medicine “a doctor” and know not any difference between the quack who assumes that title, and the graduate of an university; they call all shops which have many-coloured bottles in their windows, “doctors’ shops,” and do not distinguish the druggist from the apothecary; we should say therefore that the argument in favour of the unlicensed practitioner, derived from the freedom of the British subject, does not apply, unless it be distinctly understood that the individual in question is an unlicensed practitioner. Let him put Mr. so and so *quack* upon his door, and a strong case might be made out in his favour; however unconscientious he may be in compromising the safety of his fellow citizens for his own

advantage, and however foolish his patients may be in confiding their lives to they know not whom, we admit that it would not be easy, on ordinary legal principles, to disprove his right to practise.

But it is not thus; for the reasons above stated, every quack and practising druggist is, to a certain extent, a cheat and impostor, and, as such, ought to be prevented from trespassing on the credulity of the multitude. But, independently of all this, the common principles of legislation must always undergo some modification before they can become applicable to the affairs of a *profession*, inasmuch as every profession has some relation to society for which the ordinary laws of “the social compact” do not provide—stands in need of some protection which those laws cannot extend to it—and seems justly entitled to some particular privileges and immunities as a counterpoise to the great expense of time, money, and labour which its members must incur to fit them for functions acknowledged to be indispensable to the welfare of the community.

On the whole, therefore, we cannot see any valid objection to the legal suppression of unlicensed medical practitioners, while the benefits, both to the profession and the public, arising from such a measure, are manifold and obvious. We of course do not mean that those individuals who commenced practice as apothecaries, prior to the act of 1815, are now to be interfered with; many practitioners so circumstanced are well-informed and experienced men, and have a right to be considered as regular members of the profession; even where it is otherwise, it would be the height of injustice to send men established in a particular vocation, to seek their means of living in another, or to compel men engaged in the active exercise of their calling to pass an examination which they never expected to encounter. But if unqualified persons were *henceforth* to be debarred from

commencing practice, how great a load of poverty and misery would be removed from the profession! The public is little aware of the fact, that of the entire number of persons engaged, in one way or other, in the practice of medicine in this metropolis, a very large proportion—we should suppose not less than one half—have never passed any examination, nor gone through any regular course of education; and that many a highly talented member of the profession is starving, along with his family, while the impudent quack or uneducated druggist next door to him is in large practice. We admit that there is one position which the practising druggist may successfully occupy against us; he may ask, if druggists are not to be doctors, why are doctors allowed to be druggists? He may say, let my neighbour the surgeon-apothecary lay down his pestle, and I will cease to prescribe; *suum cuique*. Here the druggist hits us hard, and we can make no answer, but by a repetition of what we have so often urged before, that the profession never will nor can be put on a respectable footing, as long as medical practitioners dispense drugs. We do not think that this evil can be immediately eradicated, but assuredly one of the first efficient measures of medical reform must be to put things in train for the gradual abolition of this absurd and pernicious custom.

Nothing can be conceived more utterly preposterous than the present state of the medical profession in England. The profession is a farce—a bore—and every gentleman is ashamed of belonging to it. No man knows who or what he has to deal with; we are requested to meet “a brother practitioner,” and find ourselves shown up in next week’s *Lancet* for consulting with a druggist! *Proh Deum atque hominum fidem!* When is all this monstrous foolery to have an end?

Summary of Orfila’s Observations on the changes which occur in the Tissues of Dead Bodies after Interment. Appended to Sédillot’s Manual de Médecine Légale. Translated from the French, for this Journal.

(Continued from p. 253).

Pressure—Depth of the Grave.—Pressure retards putrefaction, as Godard and some other authors have proved.

The results obtained by Godard may be estimated from the following experiment*.

On the 10th of March, at six in the evening, the thermometer standing at from 8 to 10 deg., pieces of lean veal of equal weight were immersed in equal quantities of water, but contained in vessels of different height, that of the one being two inches and a half, and that of the other three feet, including the length of a tube that was adapted to it; the smaller bottle was closed by a stopper of wax, pierced by a hole equal in size to the orifice of the tube in the other.

On the 14th, at the same hour, air was found to have been disengaged in the small bottle, but none in the other.

On the 15th, at eleven in the morning, the piece of meat in the small bottle floated, and the water was turbid; some bubbles were visible in the other, but in much smaller quantity, and the water retained its transparency.

On the 17th, at six in the evening, the number of bubbles in the small bottle was much increased, the piece of meat continued to float, while there was no change in the other.

On the 22nd, at half past seven in the morning, the water in the small bottle had a much more fetid smell, and was much more turbid than that contained in the bottom of the large one; the water in the upper part of the latter, and in the tube, had undergone no alteration. The same difference obtained in the putridity of the two pieces of meat, but they both lost their disagreeable odour when taken out of the water and exposed to the air for a few seconds. Since the meat in the small bottle was surrounded by a larger volume of water than that in the

* Godard. Dissertation sur les antiseptiques imprimée par ordre de l’Académie Paris, 1769, page 268, et suiv.

large, it might have been expected that, at the same degree of putrefaction, the water in the latter would have been more tainted than that in the former, because the putrid effluvia were less diluted; the contrary however was the case, and hence the difference in the transparency and smell of the waters, and in the putrefaction of the pieces of meat, evidently demonstrate the antiseptic power of compression.

The deeper the grave, then, other circumstances being similar, the more will putrefaction be retarded—the rather that, to the depth of several feet, the earth is cooler as it is further from the surface.

State of the Body as to Clothing.—The facts hitherto collected, and many of our own observations among others, prove that *cæteris paribus* the more immediately the bodies are in contact with the earth, the more readily they putrefy; thus a body that is buried naked, will putrefy much sooner than if it be wrapped in a winding sheet, and enclosed in a *lead* coffin; if the coffin be of *oak* an inch in thickness, putrefaction will not be so long delayed, still less if composed of the same wood only a few lines thick; and less again if the coffin be of *deal*, especially if it be very thin; finally, if the body be buried without a coffin, and merely covered with clothes, a winding sheet, or a *cerecloth*, putrefaction will take place much more rapidly. How greatly the progress of putrefaction is influenced by the envelope, is evident from the long preservation of the viscera, as compared with the skin, which is owing to the latter acting as an envelope to the former, since when the integuments are destroyed, the putrefaction of the viscera proceeds rapidly; observe also how long the brain lasts in comparison with other organs, because it has a very solid envelope in the cranium; thence it is easy to perceive the influence exerted on the process of putrefaction by clothing, and by the coffin, which act in the same way as the natural envelopes, that is, by retarding the operation of decomposing agents. A coffin, however, only delays decomposition, since every body, even when encased in lead, is finally destroyed.

Atmospheric Influences.—It will be sufficient merely to mention the influence of atmospheric heat and moisture, to convince our

readers of the effect of these elements in the acceleration of putrefaction.

After all the foregoing considerations, what are we to think of Burdach's opinion on the nature of the changes which dead bodies undergo after inhumation. According to him, this decomposition is divisible into three stages; 1. Inflation of the whole body by the development of gaseous matters; this is the period of fermentation, which lasts several months. 2. Conversion of the soft parts into a pulaceous matter of a green or deep brown colour, the body collapsing from the volatilization of its gases; this period lasts from two to three years. 3. The gases are disengaged; the fetid smell changes into a mouldy one, and there remains an earthy, fat, friable, brownish matter, which after a considerable number of years is resolved into ashes, which mingle with the common earth.

We cannot admit such notions of the progress of putrefaction in the earth; they are evidently erroneous, and calculated to lead inquirers into error.

As to the first period, have we not often, not to say always, seen bodies opened ten, fifteen, forty, or fifty days after inhumation, in a collapsed state, bearing no sort of resemblance to that of tumefaction, which Burdach supposes to continue for several months? Not that we deny that bodies ever tumefy at the commencement of putrefaction: we merely wish to establish that tumefaction does not necessarily occur; that it is frequently absent; and that, when it exists, its duration is generally not nearly so great as that assigned to it by Burdach.

With respect to the second period also, it is evident that this author has deceived himself, for, although the body collapses, it is not true that the soft parts are constantly converted into a pulaceous matter; have we not, on the contrary, observed that these parts most usually desiccate, and are reduced to lamellæ or coralliform filaments, or sometimes assume somewhat of the appearance of pasteboard? Besides, how can we admit the two or three years' duration of this period, when, in the greater part of our experiments, the bodies were almost reduced to skeletons at the end of fourteen, fifteen, or eighteen months, even when they had been buried in coffins, and enveloped in

linen? The inaccuracy of the description of the third period is likewise manifest; in truth the fatty matter which remains, in small quantity, at the last stage of putrefaction, is neither earthy nor friable, it is a sort of oleagenous substance resembling the old grease of a cart wheel deeply coloured.

In addition to all these facts, subversive of the opinion of Burdach, we may remark that, admitting the duration of the periods to have been accurately stated by him with reference to a certain soil and certain bodies, it would cease to be so with respect to other soils, and to subjects differently circumstanced. Hence, those appointed to conduct inquiries of this nature, cannot be too distrustful of such results, which, unfortunately, have been frequently taken for guides in determining the period at which the death of unknown individuals has taken place.

It is evident, then, that we must no longer accede to the opinion of those physicians and anatomists who, trusting to the report of grave diggers, believe that from three to four years are necessary for the complete destruction of the soft parts of a body under ground; others indeed maintain that this does not take place in less than six years. But are we not aware that the varieties in this particular are both numerous and extraordinary? Examples are abundant of the preservation of bodies after several years' interment; we will confine ourselves to a few. Limbrecht has left on record an observation entitled, *De manu in sepulchro ultra sæculum ab omni putredine conservata*. The same author states, that when passing by a monastery in the Narbonese Gaul, dead bodies were shown to him in a good state of preservation, which had been long removed from their sepulchres. Faber communicated to Fabricius Hildanus an observation entitled, *De cerebro non putrefacto in cadavere quinquagenis annis sub terro reposito*.

(To be continued).

—o—

ADVICE TO MEDICAL STUDENTS.

To the Editor of the London Medical and Surgical Journal.

SIR—It ought to be known to all pupils, who are about commencing their medical studies, either in London or elsewhere, that according to lately issued regulations, both of the College of Surgeons and the Apothe-

caries' Company, each course of Anatomy and Surgery must last at least six months, containing at least 140 lectures, each lecture being delivered on separate days. The course, therefore, will begin in October, and not end before the following April, or perhaps May.

Now, unless the public are clearly apprized of it, the consequence will be, that many pupils will come to town, according to the old custom, in January next, expecting then to enter upon a new course of lectures, for the study of bones and the elementary principles, when we shall be far advanced in the October course, and they will find themselves wofully disappointed and bewildered. Those, therefore, who enter to lectures this winter, should do so in October or not at all.

Your obedient servant,

G. D. DERMOTT.

15, Charlotte Street, Bloomsbury.

September 22, 1835.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Poisoning by Sulphuric Acid.

A MAN who had attempted to poison himself by swallowing, it is said, $\frac{3}{4}$ iv of sulphuric acid, was admitted at 12 P. M. June 24, under the care of Dr. Thomson. A surgeon in the neighbourhood had previously to his being brought to the hospital administered a quantity of magnesia. On his admission he vomited a considerable quantity of glairy, dark-coloured fluid; magnesia, carbonate of soda, and water, were administered freely, but ejected almost immediately. In about an hour the ingesta became tinged with blood, some of which was also vomited in a pure state. His pulse was 84, small and feeble. He was inclined to sleep, but could not, in consequence of being interrupted by fits of vomiting. During the night he occasionally vomited a fluid of the same character, and complained of great pain and sense of constriction in the course of the gullet. In the morning, at 7 o'clock, the pain and dysphagia were increased; for these symptoms he was bled to 18 ounces, and much relieved.

25th. Great difficulty in swallowing, with great pain in the throat; trachea and œsophagus painful on pressure, as is slightly the epigastrium; the tongue and gums whitened, the former red at the point; pulse 100; face flushed; surface hot; constant flow of saliva; breathing comfortable; 20 leeches to be applied to the throat.

26th. The pain in the throat and œsophagus much increased on swallowing, and when they are pressed on; also pain on pressing the anterior surface of the chest and the epigastrium. Pulse 104, firm; vomiting ceased; slept a few hours in the

night. Bowels confined; tongue redder, whitened surface coming off.

27th. Ordered twenty leeches to the epigastrium; half-ounce doses of castor oil every second hour, until the bowels are moved. No tenderness on pressure on the trachea, chest, or epigastrium; had a few hours' sleep last night. Bowels well opened by oil; tongue and mouth less covered by whitened cuticle; pulse 104; some pain on swallowing, as of a raw surface; vomiting occasionally; complains of a sensation of something loose in the œsophagus.

29th. Sensation of rawness and burning in the throat and œsophagus, increased on swallowing; could not sleep in the night; pulse 80, quick and compressible; tongue white at the base, red at the apex, no tenderness on pressure over the trachea or epigastrium.

July 1st. Gradually improving since last report. Discharged to day quite well.

—o—

MEDICAL BOTANY.

PLATE V.—CONVOLVULUS JALAPA.

PENTANDRIA Monogynia.—Nat. Ord. Campanaceæ, Linn. Convolvulaceæ, Juss.

Jalap is a perennial species of convolvulus, an inhabitant of Mexico and Vera Cruz, from which it was imported in 1610. The root when fresh is white and ladescent; when brought into this country, it is covered with a blackish wrinkled bark, is of a grey colour internally, and marked with darker or blackish stripes. It has a nauseous smell and taste, and when swallowed, causes a sense of heat, and a copious discharge of saliva. When powdered, it is of a yellowish grey colour.

The light, whitish, friable worm eaten pieces, ought to be rejected.

Mr. Hume, Jun., was the discoverer of *Jalapine*. He treated jalap with acetic acid, filtered the solution, precipitated it with ammonia, and obtained the jalapine by filtration. This remedy has not come into use.

Medical Use.—Jalap, in the dose of fifteen or twenty grains, is an effectual purgative, but gripes persons of a bilious temperament. It also acts slightly on the kidneys; but its extract is a powerful diuretic. The compound powder of jalap is a highly valuable hydragogue purgative, and is much used in dropsies. Even this gripes severely in some cases. The addition of some aromatic prevents this effect. Jalap is employed in costiveness, dyspepsia, mania, dropsies, and is combined with submuriate of mercury, and other purgatives of slow operation.

—o—

PEREGRINATIONS OF AN IRISH LEECH.

Our erudite and voracious contemporary the *Dublin Medical and Chemical Journal*, has for some time advertised largely the wonderful

account of the British Association, taken in short-hand by a medical gentleman? which its pages were said to contain. In order to astound us, poor matter-of-fact mortals, the learned editors, Drs. Graves and Stokes, have published a most extraordinary story of an adventurous leech, which exceeds in absurdity any thing of which we ever heard or read. Despising the meanly useful occupation to which his species are devoted, and moreover, possessing powers and organs of which they are destitute, this leech, with his sharp incisors and grinders, not having the fear of God before his eyes, did eat and burrow into the leg of a poor country damsel. He commenced his voyage of discovery at the ankle, and, piercing through tendons and muscles, and, for aught we know or have read to the contrary, through the knee joint, he winded his way, undiscovered and unfelt, without inflammation or pain, until he fairly lodged himself beneath the fascia of the thigh. He became, we suppose, overpowered by the magnitude of his undertaking, and wanting the fortitude and perseverance of a Ross, or the untiring patience of a Columbus, he resolved to return, to relate to the world the journey he had made. If he was capable of such wonders, unaided and untaught, what might have been his efforts if instructed and patronised by the learned editors of the *Dublin Journal*? Had he been of their school, he would not have stopped half way, but continued his excavations, and penetrated into the cavity of the abdomen, through the convolutions of the intestines, the liver, &c.; and may we not imagine, by some efforts of his mighty power, pierced the vertebrae, and getting into the spinal marrow, burrow on to the brain, and at length emerge from the occipital frontal fascia, or through the petrous portion of the temporal bone, thus traversing the whole extent of our mortal frame.

Our sagacious contemporary, the Green Lizard, wishing to puff off the wonderful feats of this mighty leech, and thinking that he belonged to his species (politics), without having anatomical knowledge enough to perceive the impracticability of the narrative, actually copied this leech story, which out-Herod's Munchausen's hydrophobic cloak; and the newspapers, caught by this unheard-of occurrence, have widely circulated the absurdity, of which, had they any inkling of natural history, they would have at once perceived the impossibility.

Here is the story:—

Dr. Roe, of Cavan, mentioned a curious case of this nature at the Dublin meeting. He said that he was called, some time back, to visit the daughter of a farmer residing at Drum, in the county of Cavan; the girl had been attacked several days previously with inflammation of the thigh, and at the time of his arrival was labouring under severe symptomatic fever, with delirium. The thigh was

tense, red, and shining, enlarged to nearly twice its natural size, and extremely painful. No cause could be assigned for the disease, and he was informed that until the occurrence of the present attack, she had always enjoyed excellent health. Having ascertained the existence of a collection of matter under the fascia, he made an incision, and evacuated a bowlful of pus, mixed with what he considered to be clots of blood. His attention was not directed to the contents of the abscess at that time; besides, the room was dark, and he was anxious to give vent to the pus as quickly as possible, as the patient was extremely restless. On emptying the matter from the bowl on a clean flag outside the door, the girl's mother was surprised to find among it a leech, coiled up, quite alive, and moving actively. She immediately brought the leech to him, and it continued to live for several days afterwards. On inquiring minutely into the history of the case, he found that some days before she first complained of the limb, she had been gathering water-cresses in a ditch, and had felt hurt in or about the ankle of the inflamed limb, but did not pay much attention to it at the time. On examining the ankle, he found a triangular cicatrix, such as that which might be produced by a leech bite. This fact would seem to prove that such animals can enter, burrow in, and preserve their vitality in the soft parts of the human body. A member asked whether Dr. Roe meant to state that the leech had entered in the manner supposed. Dr. Roe stated that he did not know any other way in which it could enter. The animal in question was what is called a horse-leech, and which is generally found in ditches and standing pools.

—o—

RELATION OF THE THREE KINGDOMS OF NATURE TO EACH OTHER.

WHEN we attentively consider the present condition of the inorganic kingdom, it will appear obvious, that the continuance of its existence and arrangement does not depend on the presence of organized beings. Independent of its vegetable covering, of the animals by which it is peopled, and of man himself, this globe could still revolve in its orbit, and act its part in the solar system, though naked, silent, and lifeless. Changes would, indeed, take place on its surface, in consequence of the laws of chemistry and mechanics, and independent of the aid of living bodies. The prominent parts would be worn down; the hollows would be filled up; and its outline would assume an inclination every where at right angles with the direction of gravity. These changes have, in part, been accomplished; and have impressed on the different strata the peculiar characters of their structure and superposition.

The organized kingdom, on the other

hand, could not exist alone. The beings of which it is composed may be considered as the parasites of this planet, and depend on its present movements for the exercise of their functions. Were the earth to approach nearer the sun, or recede to a greater distance, organized existence would be destroyed, by the mere change of temperature.

The presence of the inorganic kingdom is necessary to the existence both of plants and animals, as furnishing them with the elements of their composition, and a place of residence. Plants may be considered as more immediately dependent on the inorganic kingdom than animals. Their attachment to the soil is more obvious; and the changes which take place in its condition, exert a more direct influence over them. The *lichens* cover the exposed surface of the rock; and, by the retention of moisture, accelerate its decomposition. The *mosses* next establish themselves in the hollows and crevices; and, by degrees, prepare a soil for the *stamiferous* vegetables. These last attempt to establish themselves in such a manner, as to banish to the still barren districts the first fabricators of their soil. The most perfect plants are, in general, independent of the animal kingdom, or able to subsist without their presence. The members of that great family, indeed, are their enemies rather than their friends.

The animal is, in a great measure, dependent on the vegetable kingdom for food and shelter. Some animals live directly on plants, as their only nourishment, others live on the flesh of other animals, but these last are, in general, supported by vegetable food. Hence, we may assert with confidence, that if the vegetable kingdom were to perish, the extinction of life, in the more perfect animals at least, would inevitably follow. Some of the less perfect animals are more independent in their condition. The *infusoria* appear to subsist by decomposing water. They, however, prepare a suitable repast for the *annulose* and *molluscous* tribes; and these, in their turn, contribute to support the vertebral races. In both kingdoms, therefore, the smallest and most obscure species are subservient to the welfare of those which are larger and more perfect.

In viewing the relation of these great classes of beings to one another, we perceive an admirable adaptation of means, to the establishment and continuance of the present order of things. The surface of our globe exhibits a great variety of *situation* for the residence of plants. Part is occupied by land, and part is covered with water. The land varies, in composition and moisture; the water in its contents and motion; and both vary in their temperature. But however different these situations appear to be, there are plants peculiarly adapted for each, in which they flourish with the greatest vigour, and where they are only restrained within

fixed limits, by the physical characters of their station.

The condition of the earth, which thus presents different situations for the species of the vegetable kingdom, influences the species of the animal kingdom in a similar manner. But animals are not only dependent on the physical character of their station, but on the presence of those vegetables on which they subsist, whether directly or indirectly. In the existing arrangements, animals are distributed, with regard to plants, in such a manner, as that a supply of food may be readily obtained; limited, however, so as to prevent the excessive increase of any particular species. In their turn, animals influence the growth of plants, by keeping many species within due bounds, and by assisting the dissemination and nourishment of others. But amidst this variety of action and reaction, and of temporary derangement, circumstances always arise, by which irregularities are checked, losses compensated, and the balance of life preserved.

Linnaeus, from the contemplation of this subject, concluded, contrary to the generally received opinion, that animals were created on account of plants, not plants on account of animals. The defence of this opinion rests on the consideration, of animals having organs suited to cut and bruise vegetables as food, and by these operations, sometimes contributing to preserve an equal proportion among the species; and on the following reasoning—that the iron was not made for the hammer, but the hammer for the iron—the ground not for the plough, but the plough for the ground—the meadow not for the scythe, but the scythe for the meadow. The exclusive consideration of the indirect consequences of the actions of animals, has obviously betrayed Linnaeus into this opinion. That it is erroneous, may be easily demonstrated, by the employment of his own method of reasoning. Plants, we know, are furnished with roots to penetrate the soil for nourishment and support; and fishes have fins adapted for swimming. Now, if the soil was not made for plants, but plants for the soil; if the sea was not made for fish, but fish for the sea, then, instead of considering animals as created on account of plants, we must draw the mortifying conclusion, that both animals and vegetables were created on account of inorganic matter; the living for the sake of the dead.

All that we know with certainty on the subject, amounts to this—that the organized kingdom is dependent on the inorganic; that animals are greatly dependent on vegetables, and that the different tribes in each kingdom have determinate mutual relations. Judging from the mode of action peculiar to the species of each kingdom, we are led to conclude, that vegetables

are superior in the scale of being to minerals; that animals are superior plants; and that they constitute a harmonious whole, in which the marks of power, wisdom, and goodness, are every where conspicuous.”

—o—

MANUAL OF OPERATIVE MEDICINE, BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

4. *Of Phlebotomy.—From the Arm.*—The *Surgical Anatomy of the Parts.*—Ordinarily we find at the bend of the arm five principal veins which may be operated upon by the lancet; these are, taking them from without inwards, the radial, the median cephalic, the median basilic, the common median, resulting from the union of the two, and the cubital or ulnar. But, with respect to their number, size, and depth, there are a crowd of anomalies.

The median basilic is generally the largest, the most superficial, and the most constant. It runs along the tendon of the biceps and the brachial artery, from which it is separated by fibrous or cellular laminae. Sometimes it passes parallel to the artery and immediately above it (he means in front of it). More frequently the vein crosses the artery very obliquely. It is surrounded by several filaments of the internal cutaneous nerve. Its vicinage to the artery renders bleeding in this vein very dangerous; but it is the one most commonly opened.

The other veins do not present any such danger, but they are more or less surrounded with nervous filaments which are most numerous towards the inside of the arm. Lesfrances prefers the upper parts of the median cephalic, since he finds no nervous filaments around it there; if its lower portion be preferred, the hand should be placed in a state of pronation. Next, he approves of the radial; next, the common median, remarking, however, that when this is in the space which separates the supinator longus from the pronator teres, it is surrounded by nervous threads, the section of which is unavoidable; and, in thin subjects, the radial artery is so near as to be in danger. Of the remaining veins, he prefers the median cephalic to the cubital, this being so closely surrounded with nerves; the lower the former vein is opened, the safer is the operation, as the artery becomes more deeply seated as it descends the arm. The greater part of the dangers resulting from the relative position of the artery may be avoided by placing the arm in a state of forcible pronation.

In operating we employ a lancet, shaped at its point like the outline of a grain of wheat; all other shapes are obsolete. In bandaging the arm we employ a tape, which should be tied in a bow sufficiently tight to prevent the return of blood through the superficial veins, but not constricted so much as to interrupt the circulation in the arteries. If not ambidexterous we may bleed in the left arm with the right hand, observing to stand on the outside of the limb. In introducing a lancet, we should first be careful to fix the vein firmly with the thumb, to prevent it from rolling, to puncture the skin, in an almost perpendicular direction, about a finger's breadth from your thumb, and to bring out the instrument in the direction of a gradual curve, which is to be larger or smaller in proportion as we wish to make the orifice greater or less. When we wish to bleed repeatedly from the same orifice, we may usually effect our purpose by removing the bandage and reapplying it above the orifice, at the same time rubbing the arm upwards in the course of the vein. Some destroy the recent adhesions by a blunt-pointed probe, but we may in this way produce phlebitis.

When a vein does not appear, the arm may be tied up for half an hour or an hour, and the muscles moved about; there is no objection to bleeding over an old cicatrix.

It is denominated a *white bleeding* when the vessel is not opened. In this case, if the vein should appear at the bottom of the incision, we may attack it again with the lancet; if not, another vein must be sought after. After the flow of blood has commenced, it may suddenly stop from various causes—from the ligature being too tight; when this must be loosened—or from its being too lax, when it must be made tighter—or from the orifice being too small, in which case this will require enlarging—or from a little portion of fatty substance projecting through the wound, and which may be pushed on one side, or cut away with the scissors—or from the openings in the vein and skin not being parallel, which is often the case, it being the common practice to open the vein with the arm in a supine position, and to draw off the blood with the arm pronated. Lastly, fainting prevents the continued flow of the blood. This may be obviated by stopping the vein for a short time by pressure with the thumb, administering restoratives, and placing the patient in a recumbent posture; after which the bleeding may be resumed.

The ecchymosis which follows bleeding, may be removed by enlarging the opening in the skin, and keeping a bandage and compresses on the part for a few days. The serious accidents which may follow bleeding, are a wound of the artery, consecutive

phlebitis, pricking the leader or aponeuroses; the last, however, is at the present day regarded as unimportant. When the artery is wounded, the hemorrhage may be stopped by bending and pronating the fore-arm forcibly, and applying a piece of money over an ordinary compress.

Bleeding in the Foot.—The internal saphena vein may be opened in front of the inner ankle, or the external saphena vein in front of the outer ankle; but the latter is seldom large enough to be punctured when we cannot succeed with the internal vein.

The patient should sit some time with the feet in warm water; then the surgeon having made choice of one of them, ties a bandage about two fingers' breadth above the ankle, takes the foot out of the water, receives it on a napkin placed over his knee, and opens the vein, taking care not to penetrate so far as the bone, lest he might break the point of his lancet, and leave it in the wound. When the blood spirts freely forth it is received in a basin in the usual manner; when it merely drips, the foot must be replaced in the water, and we are obliged to form conjectures as to the quantity lost, by the colour of the water. The foot should not be plunged too deeply in the water, for fear the pressure of the column of fluid should restrain the bleeding; and it should be sponged often, and the toes moved about. A figure-of-8 bandage is placed round the foot and ankle when the bleeding is deemed sufficient.

(To be continued.)

—o—

BOOKS.

A Manual of Pathology, containing the Symptoms, Diagnoses, and Morbid Characters of Diseases; together with an Exposition of the different Methods of Examination applicable to affections of the Organs contained within the Head, Chest, and Abdomen. By L. Martinet, D.M.P. Translated, with Alterations and Additions, by Jones Quain, M.D. Fourth Edition. Revised and Enlarged. 12mo., pp. 443. London: Simpkin and Co. 1835.

An Introduction to the Study of Practical Medicine; being an Outline of the leading Facts and Principles of the Science, as taught in a course of Lectures delivered in the Marischal College of Aberdeen. By John Macrobine, M.D., Junior Professor of Medicine in Marischal College, &c. 8vo. London: Highley. 1835.

A History of British Quadrupeds, by Thomas Bell, Esq., F.R.S., F.L.S., Lecturer on Comparative Anatomy at Guy's Hospital: in one volume, 8vo., uniform with the History of British Fishes, by Mr. Yarrell.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster; or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 192.

SATURDAY, OCTOBER 3, 1835.

VOL. VIII.

LECTURES

ON THE

INSTITUTIONS OF MEDICINE,

DELIVERED BY JOHN FLETCHER, M.D., F.R.C.S.E., AT THE ARGYLE SQUARE SCHOOL OF MEDICINE, EDINBURGH; SESSION 1834-5.

LECTURE XXXI.

Exhaustion of Irritability—Death.

WHAT has preceded appertains chiefly to certain more or less permanent changes in the degree of irritability, arising from causes which, from being slow and progressive in their operation, give rise to no secondary effects. But an important consequence of the fact lately laid down as an axiom remains to be mentioned with reference to such changes in the degree of irritability as are brought about suddenly. In this case, upon the irritability being diminished by excessive irritation, the part subsequently, of course owing to one of the conditions of its actions having been lessened, undergoes diminished irritation from the usual stimuli; but as diminished irritation is, according to the same axiom, a cause of increased irritability—although, when the process is slow, the effect is imperceptible—the part in this case afterwards, owing to this condition of its action having been now increased, undergoes increased irritation from the same stimuli, and its action is thus poised, as it were, on either side of the line of health, till the healthy action is at length restored. And if this line of action be thus set up by a primary diminution of irritability as the result of excessive irritation, it must be equally established by a primary increase of irritability as the result of defective irritation, the only difference consisting in this, that the second link in the first chain of actions corresponds to the first or third links in the second, and so on for the rest. Hence it follows, as a corollary from this axiom, but more especially with reference to what may be called acute cases, that *a precisely similar state of either excessive or defective irritation may result equally from the operation of two agents the primary action of which is diametrically opposite*, and that either a stimulant or a sedative application (a) may

(a) Whether there be any agents upon the body, except such as are negative, like cold, want of food, and so forth, which operate directly in diminishing irritation, is more than doubtful. It is indeed a leading tenet of the modern Italian school, of Rassi, Tommasini, Borda, and the rest, that there do exist agents, which they distinguish by the names of contra-stimulants or negative-stimulants, the operation of which is *immediately* to lower irritation, and of this nature is the celebrated tartar-emetic in its effect upon the action of the heart. It seems, however, reasonable to believe that the effect of the operation of every positive agent on irritability must be irritation—since all that we understand by irritability is the property of being called into action by all kinds of agents applied to it. Irritation is indeed susceptible of diminution

in either of two ways—by the abstraction of stimuli, by which one of its conditions, or by that of irritability, by which the other is to a greater or less degree withdrawn; but, while the former is easily effected by the employment of negative agents, we know of no means of effecting the latter except by exciting preternatural irritation, and it is in all probability in this way that all the reputed contra-stimulants produce their effect. It is true, the sedative effects of their agents on certain organs are frequently much greater than appear to be explicable upon the presumption that they are merely the consequences of the previous excitement of these organs; but there is a source of fallacy here of which it is of importance to be aware. If tartar-emetic, for example, first violently excited the action of the heart, we should imagine that we had no

appear to give rise to either the one or the other exclusively according as this or that stage of its action is the more prolonged. It is thus only that we are enabled to solve the apparently difficult problem how not only heat and cold, *Boreæ penetrabile frigus adurat*, but excess and deficiency of food, a superabundance of blood, and too great depletion, and numerous other opposite causes, should give rise often to precisely the same effects. It will be obvious that all the positive agents increase directly one condition of excessive irritation—namely, the stimulus in action, while all the negative increase indirectly the other—namely, the susceptibility acted on; but both equally occasion increased irritation, and its consequence diminished irritation, in which inflammation—the head and front of the great majority of diseases to which the body is liable—consists. The same principles are adapted further to explain the nature of what is commonly called the latent stage of inflammation, which stage is in fact the most active stage of any, consisting as it does in that state of preternatural irritation of the capillary vessels which is preparatory to the diminished irritation in which the disease essentially consists. It gives rise, it is true, of itself, to no particular symptoms, and it is by those alone which take place during the subsequent stage—which is perhaps always the longer and more violent the longer and more intense has been this alleged latent stage—that we at length recognise the disease; but it is not on that account the less active. Nor is there any difficulty in understanding upon these principles how the same agents—positive or negative—for example, heat or cold—which are often instrumental in producing inflammation, should be so frequently among the most effectual means of removing it. Indeed, if the above doctrines are well founded, it could not have been otherwise; for since these agents produce the disease only by the collapse which follows the inordinate irritation which they occasion, the one directly and the other indirectly, it would necessarily follow that a renewal of this irritation, not beyond, but only up to the natural point, must alleviate or remove it. Hence the benefit derived in inflammatory diseases in general, after the abstraction, if necessary, of a part of the load to be moved forwards by the capillary vessels of every agent which operates in exciting the moving powers; and such agents we accordingly apply either directly to the part affected, if it be one which admits of this, or sympathetically, if it be one which does not: and it is in the latter way that all the reputedly revulsive remedies are of advantage in such diseases—not by counter-irritating, as is sometimes so vaguely supposed, or withdrawing irritation from a part already undergoing too little—but by communicating to it a stimulus by which that irritation is to the requisite degree increased (*a*). It might further have been expected that the particular stimulus would be found most competent to effect this end which had already, by its deleterious action upon the part when in a state of health, proved its adaptation to the specific irritability of this part; and it is upon this principle that the whole doctrine of the homœopathia—ignorant as they are, for the most part, the patrons of this doctrine, of the fundamental truth on which they are proceeding—essentially hinges. But the subject of the mode of action of the causes and remedies of diseases, however connected it may be with that of increased and diminished irritation, is almost an inexhaustible one; and its full consideration belongs rather to pathology and therapeutics than to elementary physiology. It may be repeated here, however, in conclusion of this subject for the present, that as it is of some change in that irritability or susceptibility which when natural is the *predisposing cause*, as it were, of health, whether of the whole body or of certain organs, and whether acquired in the manner recently de-

difficulty in understanding how this action should be afterwards in an equal degree diminished; but, on entering a little into the subject, we should find that we could explain it only on the presumption of some deleterious change having been effected in its nervous matter by the preponderance of absorption as the *indirect* result of this irritation of its muscular tissue. But why may there not exist substances capable of increasing *directly* this action of the absorbing vessels, and thus of diminishing the proper action of the heart without having previously increased it? It needs not perhaps be always *through* an irritation of tissues capable of displaying any sensible action that a stimulus takes effect upon their absorbents; and if it operate on the latter directly, we can have no measure of its primary stimulating action, involving as it does only the molecular process, and can recog-

nise it only by its secondary and sedative effects, upon processes obvious to the senses. Perhaps had we any criterion of the former, we should find that the latter always in fact accurately correspond with it.

(*a*) If any two subjects had to be selected, among those which are most frequently in the mouths of medical men, upon which they are, generally speaking, the most totally destitute of the faintest outline of the shadow of an intelligible idea, we could not perhaps do better than pitch upon the two last alluded to—the nature of the latent stage of a disease, and the operation of a so-called revulsive remedy. It would be flattery to call the opinions commonly entertained on these subjects erroneous—they have no pretensions for the most part to the name of opinions at all. The subject will be resumed in its proper place.

scribed, or natural to a certain age, sex, temperament, idiosyncrasy, or habit of body, that every predisposing cause of disease consists, so it is to some change in those salutary powers by which irritability is excited, and which when natural are the *exciting causes* of health, or to some other powers which are altogether accidental and deleterious, that every exciting cause of disease is referable; the *proximate cause* of disease in the mean time bearing the same relation to the two that a healthy function bears at once to irritability in its natural degree, and to those powers by which it is naturally called into action.

As life and irritation are virtually synonymous terms, it follows that the total cessation of irritation must constitute death; but as this cessation may arise from a failure either of irritability, which is irrecoverable, or of the requisite stimuli, which may be restored, it results that death may be either permanent or temporary, the latter constituting what is commonly called suspended animation, or more vaguely, when general, asphyxia, syncope, or prolonged apoplexy, in which, although there is no life or irritation, there still remains a susceptibility of it (*a*). Permanent death may be either of a certain part alone, or of the whole body. When it is only of a certain part, it constitutes what is called mortification or gangrene, which is of two kinds, dry and humid—the former arising from a mechanical obstruction of the larger blood-vessels of the affected part (*b*), so that the renewal by the capillaries of the proper ganglionic nervous tissue—still presuming this to be the immediate seat of irritability or vitality—in proportion to its consumption, is impossible; the latter, from such a degree of that diminution of the irritation of these capillaries, in which inflammation consists (*c*), as, instead of favouring, is incompatible with secretion, so that the same effects result. When the death is of the whole body, it may be presumed to result from a similar deterioration taking place in the ganglionic nervous tissue in every part; in other words, from each part becoming disorganized—for, if irritability or vitality is the result of organism, as has been from the first assumed, this is a necessary inference—by the secreting process falling short in every part of the absorbing, in consequence of the excessive irritation either of every part directly, or of some one part, which by sympathy involves all the rest. Such a total exhaustion of irritability or vitality is sometimes very suddenly effected, as when death is occasioned by electricity, by violent exercise, by an intense emotion of the mind, by certain poisons, or by a blow on the head; all which circumstances have been already stated as preventing, as well the natural coagulation of the blood, as the usual rigidity of the muscles, owing probably, the former to a defective decomposition of the blood, and the latter to a deterioration of the muscular tissue. But besides these phenomena, which seem to be susceptible of a purely chemical explanation, the muscles after death, under these circumstances, do not contract under the strongest known stimuli; which can arise only from a sudden failure of that property which, under the ordinary circumstances of death, is only very gradually abstracted from them. In the latter case the irritability or vitality appears to fail first, as already observed, in those organs which have the smallest and fewest ganglionic nerves, and the parenchyma of which is soonest deprived of its blood, and to be retained for the longest time in those the nerves of which are the largest and most numerous, and the parenchyma of which retains its blood the most tenaciously. It seems to be exhausted accordingly, among the larger muscles of man, first in the left ventricle of the heart, the nerves of which are few and small, while its contractions are so forcible as very rapidly to expel most of the blood from its parenchyma. This organ generally ceases to obey the strongest stimulus in about half an hour; and the irritability ceases afterwards successively in the muscular coat of the large intestines, in that of the small intestines, in that of the urinary bladder, in the right ventricle of the heart, in the voluntary muscles in general, in the muscular coat of the gullet, in the left ventricle of the heart, and lastly in the left auricle, the nerves of which are numerous and large, while its contractions are so feeble as to allow of a great accumulation of blood in its parenchyma, so that this organ sometimes retains its irritability for eight or nine hours (*d*). Now even the shortest of these periods, it may be observed, is much

(*a*) It will be observed that death is here spoken of merely in relation to failure of the two conditions of life—irritability and the stimuli by which it is excited—quite abstractedly, and without any reference to the exciting cause of the cessation of the individual functions, which could not of course be entered into before these functions had been severally and collectively discussed.

(*b*) Dodart, Noel, Lange, Bouchet, Hodgson, &c.

(*c*) "Mortification," says John Hunter, "is the most simple effect of debility;" and

according to Dr. Thomson, "the two morbid states (that is mortification and inflammation) may in some measure be regarded as stages or periods of the *same disease*"—facts which are of themselves a sufficient refutation of the opinions of those who, while they allow that mortification consists in a total cessation, or the greatest possible diminution of irritation, still assert that inflammation, which is the *same morbid state*, consists in an increase of it.

(*d*) This very nearly corresponds with the results of the experiments of Nysten, which have been already alluded to. It appears

longer than the blood, when drawn from the body, takes to coagulate—consequently, it might at first sight appear that to attribute the longer or shorter retention of the irritability or vitality of the several parts, under these circumstances, to the continuance in them of any function to which this fluid is instrumental, must be erroneous; but we are not to imagine that the process of the coagulation of the blood in its vessels begins at the period from which we are accustomed to date death. There can be no question but that the irritability or vitality of the parenchymatous tissue, with its oscillating and often retrograde currents of blood, very long survives, as has been elsewhere stated, that of any of the larger muscles—probably from its preserving the integrity of its own ganglionic matter much longer than that of the same matter as interwoven with the other tissues—and that long after the sensible motions in which respiration, circulation, and so forth consist, have ceased, the molecular actions, in which secretion and absorption consist, and those by which the coagulation of the blood is prevented, continue to be performed (a). It has been pretty well established that the hair and nails continue to grow, that the perspiration sometimes appears, and that the tears not unfrequently flow for some time after apparent death, and that a person who at the time when respiration and circulation ceased had an anasarcal tumour, is often buried without it; and if the vital processes of secretion and absorption (b) thus continue in the parenchyma so near the surface of the body, from which the blood is comparatively so soon withdrawn, how much more will this be the case in the internal parts in which it is in the same degree accumulated (c). It appears, therefore, perfectly reasonable to presume, that as in cases of sudden death, produced by any one of the agents lately enumerated, the process of secretion instantly so far falls short of that of absorption as at once to deteriorate the ganglionic nervous matter—and it has been already presumed that it is by a similar deterioration of the proper muscular tissues, under these circumstances, that the ordinary rigidity of the muscles is prevented from taking place—so in ordinary cases the former process only gradually succumbs to the latter, and that it continues the longer in every part, according as the conditions, at all times favourable to secretion, are the better maintained. But absorption is a vital process; and as it is by absorption that that degree of disorganization on which the failure of irritability or vitality depends, is directly effected, it is obvious that, not only is to die as characteristic of organized beings as to live, but, as elsewhere remarked, it is from a distinct vital process that death in all cases immediately results. It may be alleged indeed—to omit the mere truism that if a being had not lived, it could not die—that it is not because absorption continues, but because deposition does not, that vitality fails; therefore, that the process is not a positive, but a negative one. This, however, is not the case; for when both simultaneously cease, as occurs in suspended animation, vitality is not destroyed; consequently, when it is so, it must be attributed to that process which is continued to the exclusion of the other, and must be regarded, therefore, as an active and positive, and not as a positive and negative one. We owe our organization originally to a vital process—that of secretion, when there was no corresponding absorption; we owe the perfection of our organism likewise to vital processes, those of secretion and absorption, the former somewhat preponderating over the latter; we owe the maintenance of our organism to the same vital pro-

from the observations of Bicker, Sir Anthony Carlisle, and others, that some chemical agents applied to muscles after apparent death have the power of retarding, while others have that of accelerating this exhaustion of their irritability. The action of these substances, however, is, in all probability, not chemical—since such an action upon muscles is perhaps incompatible with any retention of irritability—but strictly vital, the former class of substances perhaps tending to diminish, the latter to increase that preponderance of absorption over secretion—processes still going on in the parenchyma of the muscles—on which the ultimate failure of this property appears to depend.

(a) That the motion of the fluids in the parenchyma is in a great measure independent of the action of the heart, was shown long ago by Spallanzani, who has been abundantly supported lately by Marshall Hall and Wedemeyer. We know likewise that at first the two had no connexion with

each other.

(b) In adopting this opinion, we must take care not to confound exudation and imbibition with secretion and absorption. The two former are merely physical processes, and perhaps never take place—notwithstanding some recent experiments by Fodère, Magendie, and others, which seem to prove the contrary—through living tissues; the two latter are strictly vital processes, and certainly never happen after irritability is exhausted.

(c) That this is the case is obvious from the remarkable fact, that while the marks of an inflammation of the surface, such as erysipelas or ophthalmia, frequently entirely disappear soon after death, those of an inflammation of an internal organ are in general manifest till decomposition ensues—nay, not unfrequently even healthy internal parts acquire after death a pseudo-inflammatory appearance, as noticed long ago in particular by Dr. Yelloly.

cesses, the two being now precisely balanced; we owe the decay of our organism still to these vital processes, but now absorption somewhat preponderates over secretion; and, we owe the destruction of our organism also to a vital process, that of absorption, when there is no corresponding secretion (a). When we die temporarily, we merely cease to live; but we cannot die permanently otherwise than from the destruction of our vitality, which can be destroyed only simultaneously with our organism. The last vital process implies, it is true, the possession still of vitality; but it is one which actively destroys the structure whence results the property on which itself depended, and all is afterwards the repose of inorganic matter. And that such is the case is rendered probable, among many other things, by the long retention of their vitality by the sluggish water-plants, and by cold-blooded and torpid animals in general. The difficulty with which reptiles are deprived of vitality is well-known, and fishes in general retain the same property very tenaciously. The heart of the eel, for example, will palpitate for thirty or forty hours after having been removed from the body; and it is upon the long and forcible contractions which the muscles of the carp undergo after apparent death, that the practice of crimping them depends. It is very remarkable, also, that the retention of their irritability is very much increased in those mammals which hibernate during their hibernation; the heart of a hedge-hog which has been destroyed during this state sometimes continuing to beat for ten hours after apparent death (b). But had the cessation of vitality been effected by a negative, and not by a positive process, those beings should surely have been the first, and not the last, to display it, in which the vital processes are most languid. Such as were slow to live, should have been quick to die; but as it is, the less energetic the other manifestations of life, the less rapid the destruction of vitality. The "function of death" partakes only of the inactivity of the functions in general.

But irritation, and therefore strictly speaking, life, may cease from the failure, not of irritability, but of some of the stimuli by which it is naturally excited, and thus give rise to temporary death, otherwise called suspended animation; or, when general, asphyxia, syncope, or prolonged apoplexy (c). Temporary death, also, like permanent death, may be either of certain parts alone, or of the whole body. Of the former we have examples in the effects of cold, or the abstraction of heat, on certain parts of living animals, as the ear of a rabbit, which, after having been frozen, frequently resumes its vital actions on the re-application of heat; and of the latter in those of the same negative agent on leeches, perch, and many other animals, which are often conveyed in a congealed state for many miles, and still return to life on being thawed; as well as, in a minor degree, on all those which hibernate, such as the pupæ of many insects, most reptiles, among birds the cuckoo and perhaps the swallow; and among quadrupeds the dormouse, the marmot, the bat, the hedge-hog, and many others, the animation of all which is in the winter to a greater or less degree suspended. The same thing occurs to terrestrial animals in general, from an abstraction of air, as by hanging or drowning; to aquatic animals, and to some not aquatic,

(a) A beautiful illustration of the proximate cause, if we may so express it, of death, might be drawn, were this the place for doing so, from the phenomena of death from sheer old age, in which every dry, shrunk, and opaque tissue betrays this preponderance of absorption over secretion, and every faculty, irritable, sensitive, and rational, manifests the effects of it. Not all the soaking in the cauldron of Medea, nor sleeping with fair Shunamites, nor drinking potable gold, nor replenishing the veins with all the young blood in the world, can ever enable man to resist his own inherent causes of decay till he shall find out the secret of controlling the process of absorption. Till this be done, "vain are the hopes of men," as observed by Dr. Symonds, "who look for an agerasia."

(b) Dr. Marshall Hall, *Phil. Trans.* 1833.

(c) These three morbid conditions of the body are very frequently confounded together; and indeed the names *Ἀσφυξία*, *ἄσφυγμία*, *λειποθυμία*, *ἀποφύξια*, *λειποφία*, κ. λ. τ., which have been applied almost indiscriminately to them all, seem to imply that the symptoms are almost indistinguishable.

The difference, however, consists in this, that in asphyxia the exciting cause, whatever it be, takes effect first on the lungs, the suspended function of which involves very rapidly those of the heart and brain; in syncope the exciting cause takes effect first on the heart, the suspended function of which extends instantly to those of the lungs and brain; while in apoplexy the exciting cause takes effect first on the brain, and it is not till after an interval more or less prolonged—since, immediately necessary as are the organic functions to the animal, the animal are not equally so to the organic—that its suspended function involves those of the lungs and heart. Thus hanging, drowning, negatively deleterious gases, &c., produce asphyxia, abstractions of blood, the long-continued erect posture, and so forth, produce syncope, and a deficient conveyance of the stimulus of sympathy, produces that extreme degree of apoplexy which involves at length the organic functions; but in all, when fully established, the symptoms are the same, with whatever organ they may have respectively begun.

as the garden snail, from an abstraction of water, and to all, in a greater or less degree, from an abstraction of their blood; to plants again, and the seeds of plants, from an abstraction of soil and moisture; and, in short, to every form of organized being, from an abstraction of any stimulus requisite to its natural irritation. Some of these negative agents produce merely, when their operation is temporary, a primarily diminished and a secondary increased degree of irritation, as already explained; but when it is permanent, they do not merely diminish irritation, and thus, by destroying the balance between certain vital processes, effect certain changes of structure and consequent changes of property, and resulting action, but they obstruct irritation altogether, and thus by suspending in an equal degree every vital process, put a stop to life, without impairing vitality. The only wonder is the length of time that this state of ambiguous existence, this retention of organism and of *l'aptitude à vivre*, without *la vie*, sometimes lasts (a); but the wonder ceases

(a) The instances of an obstinate retention of irritability by man are much less remarkable than those by some other tribes of organized beings; but still not a few well-known melancholy cases of premature interment sufficiently testify its occasional occurrence after apparent death from natural disease, and it is still more common in suspended animation from the ordinary causes. It is said by Winslow that the Emperor Zeno, upon his tomb being opened some time after burial, was found to have devoured a part of his arm, and the same thing is reported to have happened in the case of the celebrated Duns Scotus. The great anatomist Vesalius is well known to have been persecuted by the Inquisition for having opened the body of a Spanish nobleman, who upon the first incision betrayed signs of life; and it is said by Grainger, in his Biographical Dictionary, that the Earl of Pembroke, who died in 1630, upon being opened for the purpose of being embalmed, raised his hand. A lady also, who died in Herefordshire, is represented in the Reports of the Humane Society for 1787, to have been restored to life after interment, by the attempt of a thief to steal a valuable ring from her finger, and numerous similar cases are on record by Diemerbroeck, De Hilden, and many others, sufficient to teach us great caution in pronouncing any person irrecoverably dead before indications of actual decomposition have occurred. With respect to suspended animation from cold, it is said by Guaguin that in some countries man is a hibernating animal, and that there is a people of Muscovy who die every year on the 27th of November, and are not restored to life till the 24th of April following! But whatever we may think of this, the instances of a pertinacious retention of irritability by man after hanging and drowning—exclusive of those cases of preservation from the effects of the former, owing to nature having furnished the culprit, apparently in anticipation of such an accident, with an osseous trachea—are innumerable. Among the best accredited instances of recovery from suspended animation produced by hanging, are those of Ann Greene, who was executed at Oxford in 1650, and of Margaret Dickenson, who suffered in Edinburgh in 1727, both of whom were restored after a considerable interval; and resuscitation from

the effects of drowning is possible, according to Currie, after half an hour from the supervention of asphyxia, according to Pechlin, after eighteen hours, according to Willis, after twenty hours, according to Kunckel, after eight days, and, according to Brumann, after seven weeks: the greater part of all this, it is hardly necessary to say, is fabulous. But examples of a long retention of irritability become more and more remarkable as we descend in the scale of creation, and some recorded cases of it in quite the lowest tribes of organized beings are almost incredible. Various species of tremella for example, a kind of fungus, display this faculty to a very great degree, the tremella nostoc having been looked upon in former times as a prodigy, from its appearing frequently, immediately after heavy rains, in places where during the longest drought no traces of it had been perceptible, and other species often suddenly covering ditches after a shower with beautiful verdure which had for weeks or months before presented the appearance only of dry colourless hairs. But it is manifested even still more strikingly by some of the lowest animals, and in particular by the microscopic wheel-animal (*Rotiferi*, 1), which, as noticed by Leeuwenhoek, Barker, Spallanzani, and others, after remaining for three or four years in the form of ash-rivelled point, which may be broken in pieces with a needle like a crystal of salt, is still recoverable by a drop of water; and by the eel of blighted corn (*Vibrio*, 1), which retains the faculty of being resuscitated, as asserted by Ginnani and Needham, for twenty or thirty years. It is worthy of remark, that in all these animals this property is destroyed by electricity, seeming quite sufficiently to show in what it consists. But the most wonderful instances of obstinate retention of irritability are met with in the seeds of plants, which sometimes remain for many centuries buried in the bowels of the earth, and still, on being thrown up into a congenial soil, spring into life; and it is said that some which were taken not long ago from the hand of a mummy found in one of the pyramids, and which must have been immured between two and three thousand years, produced unknown plants when sowed in one of our botanic gardens!

when we recur to the fact that organized tissues are in their chemical nature entirely sui generis, and held together by vital affinities—not composed of sodo-albumen, gelatin, and so forth, and held together by common chemical attraction; and that till this takes place, which is not till they have become disorganized and their irritability or vitality has deserted them, they are unsuceptible of the usual chemical decomposition. But their vitality cannot desert them otherwise than by a vital process; so that there seems to be no cause why the duration of these tissues should not be as perpetual as that of inorganic matters—and in fact the supervention of permanent death and consequent chemical decomposition in these cases appears to imply at least a momentary and partial return of irritation, for which perhaps it is more difficult to account than for the persistence of their repose. That such, however, really takes place when temporary terminates in permanent death, is more than probable. Innumerable causes may give rise to this return of irritation, in as far as regards the molecular processes, which alone are concerned in effecting that disorganization on which the destruction of irritability depends, but which of course gives rise to no perceptible phenomena; and there is every reason to believe that as these molecular actions long survive the sensible actions, when both are failing from the cessation of irritability or vitality, so these will be the first to be restored upon any stimulus again taking effect upon the system in cases of suspended animation. The slightest returning irritation, confined thus to the parenchyma, is now excessive, and of course establishes and maintains a balance of action in favour of absorption over deposition, tending to disorganization and the destruction of vitality; and it is only upon such stimuli taking effect more generally upon the system and restoring the action of the lungs and heart, so that a portion of fresh blood is sent into the parenchyma—while the very diminution of vitality which has already taken place there, is now a cause of diminished irritation, and consequently of a regeneration of irritable matter and a re-accumulation of irritability—that recovery can take place. It is well known how precarious is, in every instance, the health for a long time after restoration from suspended animation, if it have been of any considerable duration, and how great the liability to inflammation, hemorrhages, and so forth, as is commonly said from the violence of the re-action. This is a sufficient proof how severe a shock, even in these fortunate cases, the irritability has sustained, and how narrow has been the line by which a return to health was separated from permanent and irrecoverable death. The process from which either might have resulted was the same, differing only in degree; and, had only one link of the chain of functions in which life consists been re-established, it would have been that which constitutes “the function of death”—the last to be maintained in the former case, the first to be restored in this.

Upon this at length occurring—at the instant of a total cessation of its irritability or vitality—all that an organized being had possessed as characteristic of its composition ceases also; and, that power by which its elements had been previously united into a living whole giving way to common chemical affinity, there result now as its really proximate principles, sodo-albumen, gelatin, fibrin, and all the others commonly so reputed, such having been previously the association of these elements in each organ, as to give rise after death to the development in each of these principles in definite proportions. But such principles are not long stationary. According to laws which have been elsewhere explained, they become more or less rapidly decomposed; and what was man, in common with the lowest worm—that “noble piece of work—the beauty of the world, the paragon of animals”—becomes at length a loathsome mass, useful only in ministering to the nourishment of still organized beings, in return for having, in the pride of his organism, appropriated the disorganized remains of so many similar beings to his own.

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho:*

Session 1834-35.

LECTURE XLIX.

Vices of Conformation, and Intra-uterine Diseases of the Liver, Spleen, Pancreas, Mesentery and Peritoneum—Intra-uterine Peritonitis and Ascites.

GENTLEMEN—I have now to direct your attention to the vices of conformation, and

intra-uterine diseases of the liver, spleen, pancreas, mesentery, and peritoneum, as organs connected with the digestive apparatus.

Diseases of the Liver.—The liver, intended to fulfil one of the principal functions in the phenomena of the intra-uterine life, in transmitting to the fœtus all the blood which is brought to it from the mother, presents nevertheless very few pathological lesions, notwithstanding the importance of its functions.

One of the alterations which is most frequently met with in the liver of the fœtus, and even in that of adults, is the presence of tubercles in the tissue of this organ; but we are ignorant to what cause to attribute the development of these bodies, which

have been observed, not only in the liver of the human fœtus, but likewise in that of many other animals. M. Husson*, in making an autopsic examination, at the Hôtel Dieu, on the body of an infant which lived only 8 days, found soft tubercles in the liver, which had already commenced suppuration; MM. Dupuy and Andral, jun., have met with similar tubercles, the first in the liver of a lamb, the second, in that of a young rabbit; the tissue of the organ, with the exception of these tubercles, was perfectly healthy.

Morgagni (*De Sedibus et Causis Morborum*, lib. iii, epist. xlviii, art. 55), relates a case of an infant, which when brought into the world had a tumour of the size of the fist, having no skin on it, on the abdomen towards the right side and a little above the umbilicus, which terminated all round by a border a little elevated, and appearing to form a cicatrix: it was uneven, livid, and yielded to pressure, as if it had been formed by an intestinal mass. The infant did not at first evacuate its alvine dejections, nor did it take the breast, but in a few days it did both the one and the other: the dejections were green and strongly marked with lines; the tumour became more livid, gangrenous, and the part of the right muscles situated under it was the seat of abscess: the infant died on the 35th day. At the autopsy were found two livers, one was small, divided into deep lobes, and situated in the ordinary place; the other much larger, shapeless, united to the first by a thick intermediate membrane, and annexed to the trunk of the vena porta, surrounded in the vena cava under the other liver, extended to the peritoneum, to which it adhered and formed the tumour already mentioned. There was no trace of the gall-bladder. The absence of the last organ has been often observed, without any influence on digestion; and in such cases the hepatic ducts opened directly into the duodenum.

In acephalous infants the liver may be absent; and it is occasionally transposed, or placed external to the abdomen, or even in the thorax. This organ sometimes presents deep furrows and other alterations. Intra-uterine vices of conformation are however of comparatively rare occurrence.

Congenital diseases of the liver are sometimes observed during intrauterine life. These are sanguineous congestions, small tuberculous granulations, such as are frequently and simultaneously discovered in the spleen and lungs. Passive congestions of the liver are the most frequent lesion of this organ in new-born infants, and this is easily explained by the fact that the hepatic is under the direct influence of the general circulation, and will then consequently cause

disorders of it. The least disorder of the general circulation will give rise to passive congestions of the liver. These are very common to new-born and young infants, in whom the liver is large often descending to the crest of the ilium or hip-bone, being also extremely vascular; and it is for this reason that we occasionally observe the convex surface of the organ covered with a sanguineous exudation which assumes the appearance of a layer of blood. M. Billard has seen in several cases an effusion of blood into the cavity of the abdomen, the result of this turgescence. He states that the symptoms of hepatic congestion were not peculiar or well marked, but were similar to those of pulmonic congestion. Thus, in asphyxia of new-born infants, there is nothing more common than to find the liver gorged with black and fluid blood, as well as all the large abdominal vessels, and those of the circulatory apparatus. Hepatic and splenic congestions are caused by a determination of blood to the abdominal organs, on account of the vascularity of the liver and spleen. This fact is illustrated by the congestions of the liver, spleen, lungs and brain, caused by the determination of blood from the surface of the body to the deep-seated vascular organs during the cold fit of ague, and more especially when that disease is of long duration. Congestions of the infantile liver are often accompanied by an abundant biliary secretion, and the gall-bladder has been found distended with thick bile, sometimes green, or sanguinolent. (Billard.) The treatment of hepatic is the same as of intestinal and thoracic congestion, which has been already described. The indication is to equalise the circulation of the blood, as the vessels in the great cavities are intimately connected as branches of the same circulatory trunk.

Inflammation of the liver can scarcely be detected in infants, even when there is fever with pain on pressing the organ. M. Billard, who perhaps paid more attention to infantile pathology than any other author, failed to discover hepatitis during life. He made researches on fifty infants of both sexes, from one day to six and eight months old. In twelve in whom the liver appeared to be healthy, he found the colour of the bile altered in two; it was abundant and clear in three; very green in one; blackish and very copious in two, and a yellowish green and very viscid in two. It therefore appears that though the liver is sound, the colour and consistence of the bile are very variable.

He also observed that the bile may vary much in the same pathological state of the liver. In some the liver was highly congested, in others remarkably pale. In these and other morbid states, the bile was yellow, green, black, and sometimes viscid and colourless. In some cases the liver exhaled the odour of sulphuretted hydrogen.

* Communications orales faites à l'Académie de Médecine, séance du 16 avril, 1825.

He concluded from all his observations, that the appearances of the liver are very variable, that those of the bile are not less so, and that it is impossible to establish positive relations between the state of the bile in its reservoirs and the normal and pathological state of the liver. He candidly confesses his incapacity to explain the modifications of the biliary secretion.

He next enumerates the result of his observations on the state of the liver and the qualities of the bile in relation to the intestinal dejections. He adds that he examined forty-eight infants for the purpose of determining this point. These suffered from enteritis or gastro-enteritis; he observed twenty affected with diarrhœa accompanied by very copious yellowish dejections; and twenty-six with equally copious green dejections. The liver was scarcely injected in fifteen of these infants; in four of these the bile was slightly abundant and very clear; it was green and very abundant in three; and presented nothing remarkable in the rest. The liver was gorged with blood in twenty-five; the colour of the bile varied from a pale yellow to a green; and in one case the gall-bladder instead of containing bile, was filled with a great quantity of black blood. In the last eight cases, the liver was yellow, green, and brown; and the bile was fluid and clear in some, while it was thick and green in others.

It follows then from the results of these forty-eight cases, that the liver presented different appearances; it was sometimes sound, sometimes injected, and presented anatomical characters, which the actual state of our knowledge does not warrant us to ascribe to that class of diseases which nature demonstrated. We cannot attribute the disorder of the digestive canal to the liver, or the yellowish and greenish evacuations to an alteration of the bile. M. Billard is of opinion that such evacuations in diarrhœa are caused by enteritis, and he censures both the British and American authors, who advise purgatives, emetics, and stimulants in such a state of the intestinal canal. He contends that former erroneous ideas must vanish before the light of pathological anatomy. Experience and multiplied observation have convinced him that diarrhœa is caused by enteritis, and not the result of diseases of the liver, and that the exhibition of purgatives to expel the supposed irritating bile from the intestines is a gross error. There are however few, if any scientific British practitioners who exhibit purgatives in diarrhœa; though it must be admitted that it is too much the fashion to refer all diseases of the digestive canal in adults to the liver, and to prescribe blue pill (*pil. hydrargyri*) as the best remedy. Nevertheless experience in many thousand cases of infants during the last twenty years has convinced me, that when the alvine de-

jections are brown, green, black, white &c., mercurial alteratives combined with mild aperients are almost invariably successful.

Some authors have concluded, that disease of the liver and duodenum are often concomitant. MM. Cruveilheir and Denis have observed ramollissement of the duodenum in infants, accompanied by a morbid paleness of the liver. M. Billard, has further observed various diseases of the liver in duodenitis.

Congenital jaundice is occasionally observed, and of this I have given an account on a former occasion. Three cases of absence of the gall-bladder are described by M. Denis. In other examples, the organ is irregularly developed; and in some new-born infants it was found inflamed. (Billard).

The biliary ducts have been found contracted, obliterated, and inflamed; but more frequently in adults and aged persons than in infants.

The spleen has been found congested, ruptured, and inflamed in new-born infants.

The pancreas may be diseased in new-born and young infants. This organ is largely developed at birth, for assisting digestion; and M. Billard inquires whether the abundance of serous motions in one form of diarrhœa may not be produced by the secretion of the pancreas. The mesentery has been rarely found diseased in the fœtus. M. Desormeaux has however stated that Cehler has found the mesenteric glands indurated, adipiform, and scrofulous, not only in the fœtus of strumous parents, but in those whose mothers presented no trace of scrofula.

In diseases of the liver, spleen, pancreas, and mesentery, a judicious employment of mercury and iodine will in the majority of cases of engorgement and chronic enlargement effect a cure. Alterative doses of calomel or hydrargyrum, c. creta, and of hydriodate of potass or other preparations of iodine, with the external employment of these remedies, will in general be efficient. But pathology proves to us the incurability of many morbid conditions of glandular and other organs*.

Besides these anomalies in the abdominal organs, which often cause death, either before, or a short time after birth, the fœtus may be affected with the different inflammations of the digestive organs which are observed in the adult. M. Desormeaux treated an infant a few years since, whose mother had been in good health during pregnancy, and which, when brought into the world was extremely thin, the whole surface of the body being of a yellowish white colour, with the countenance expressive of pain. The abdomen was swollen,

* For the use of these remedies consult my edition of Hooper's Physician's Vade Mecum, 1833; and Formulary of Hospitals, 1835.

hard, and pained by pressure; intestinal circuvolutions were manifest through the integuments; all announced the presence of chronic *enteritis*. It was confided to the care of a nurse; and notwithstanding its excessive weakness, it at first survived on some drops of milk, and then sucked the breast. It ultimately became a fine healthy child.

M. Denis (*Recherches d'Anatomie et de Physiologie Pathologiques sur Plusieurs Maladies de Nouveau-nés*, p. 129) has seen a great number of new born infants die on the second or third day after birth, from gastro-enteritis, which had clearly appeared to have been of long standing. In an infant of the male sex, which died immediately after birth, he found the lungs imperfectly expanded by air, the flesh soft, infiltrated, and the skin red; the stomach presented superficial ramollissement, with lively injection of its mucous membrane; that of the small intestines was also injected, and covered with a layer of creamy exudation. Contraction existed near the cæcum; the large intestines were filled with meconium.

The other organs contained in the abdomen of the fœtus are, as well as those of the adult, susceptible of being affected with divers inflammations. M. Véron (*Sur quelques Alterations Organiques Observées chez les Nouveau-nés*, *Nouv. Biblioth. Med.* July, 1825, p. 301) has related a case of manifest peritonitis, existing in a fœtus which was well-formed, but which did not live more than twelve or fifteen hours after birth. An effusion of purulent serosity in the peritoneal cavity, with an albuminous layer of one or two lines of thickness, adhering to the internal surface of the serous membrane, which was of an intense red colour, was detected. All the intestines and other abdominal organs were adherent, and formed one mass.

Congenital peritonitis has been also observed by M. Billard. He states that in the bodies of two infants, one died eighteen and the other twenty-four hours after birth, he detected chronic and very solid adhesions between the different convolutions of the intestines; and in one the convex surface of the liver adhered by four very solid though fine filaments to the anterior wall of the abdomen. One of the infants was emaciated, very small and pale; the other presented the ordinary appearances of newborn infants.

A similar case is related by M. Dugès. On opening the body of an infant, born at the seventh month and a half, at the *Maternité*, he found all the abdominal viscera agglutinated by a firm yellow albumen. There were thin, false membranes on the liver, spleen, bladder, &c.; the epiploon adhered to the intestines; these were yellow, hard, and thickened; they appeared to be mixed with concrete albumen; they contained a

yellow frothy mucus, &c.* Three cases, nearly similar, are related by M. Billard. He also describes acute peritonitis, which he thinks must have occurred in the last days of pregnancy, or during parturition. He does not attempt to account for the cause of the disease, and asks, is it possible that such diseases can be transmitted from the mother to the infant? He narrates a few cases of acute and chronic peritonitis after birth.

The symptoms are tension of the abdomen, which is prominent about the navel, restlessness, pain indicated by the countenance and reiterated cries; vomiting, eructations, constipation, great debility, smallness of the pulse, difficult respiration, cold extremities, which are speedily followed by death, unless proper means are employed.

The diagnosis between this disease and enteritis is not easily drawn, nor will the constipation in the one or diarrhœa in the other establish it. The treatment is, however, the same. Peritonitis may be distinguished from spasm or colic by the periodicity of pain in the one, and its continuance in the other.

The prognosis is generally unfavourable.

Treatment.—The infant ought to be removed from the breast, a leech or two applied to the abdomen, the warm bath and fomentations employed, and the bowels opened with two or three grains of calomel, followed by castor oil, infusion of senna, &c. if necessary.

When convalescence is established, the infant should be fed with ass's, cow's, or goat's milk, its abdomen swathed with flannel over its chemise, and its lower extremities kept warm, especially in cold weather. It is also essential to keep the body warm, as there is a strong sympathy between the skin and the abdominal, and all deep-seated organs, both in health and in disease.

Ascites.—According to modern pathology, and to the preceding facts, it follows that infants may be attacked, both before and after birth, with ascites or abdominal dropsy. A determination of blood to serous membranes, such as the peritoneum and pleura, may cause congestion or inflammation, and the effusion of serum often follows, forming ascites and hydrothorax. Dropsy is a rare disease in infants before the termination of the first year of their age; but it may be intra-uterine, two cases of which I detailed on a former occasion, which were described by MM. Roux and Ollivier. The infants, as at a later period of life, were pale, feeble, and affected with œdematous swellings of the lower extremities.

The different forms of dropsy very frequently supervene after scarlatina, more es-

* *Recherches sur les Maladies les plus importantes et le moins connues des Enfants nouveau-nés.* Paris, 1821.

pecially in cold weather, and there is disease of the liver, heart, kidneys, spleen, or any large tumour pressing on the vessels of the abdomen.

The usual *treatment* of the disease in adults, adapting it to the age and constitution of the patient, is usually successful, unless in cases of visceral disease.

The different forms of herniæ and prolapsus recti which belong to abdominal diseases, have been described under the head of displacement and protrusion of parts.

—o—

SELECT LECTURES,

FROM

M. BROUSSAIS'

Course of General Pathology and Therapeutics;
translated and revised

By JAMES MANBY GULLY, M.D.

LECTURE XVI.

Internal Inflammations.

THE order in which I propose to treat of internal inflammations is as follows:—

1. We will examine them in the apparatus of assimilation, or digestive canal, beginning from the pharynx, where we have already examined them, then passing to the appendical organs of the canal, the liver, the pancreas, and the spleen. It is of importance that we should commence in this way, because the gastro-intestinal phlegmasiæ are the most common, and no internal disease can be treated without acting on the digestive canal. Strictly speaking, it is possible to do without such action on the tube in external inflammations, provided they can be got under; but when it is a matter of internal phlegmasia, a knowledge of those of the stomach and intestines is absolutely necessary, first, to prevent their being confounded with others, and next, in order to avoid exasperating them involuntarily or innocently, as many persons do.

2. After the inflammations of the assimilative apparatus we will pass to those of the depurative apparatus of the kidneys and bladder, then to those of the internal genital apparatus, on account of the proximity of the organs. I think it would be an embarrassing process, and would expose us to repetitions, were we to pass from the abdomen to the chest, and then back again to the abdomen. It is a point of importance to be fully acquainted with the propagation of inflammation in one splachnic cavity previous to passing to another; on this account, after studying this phenomenon in the particular organs of the pelvis, we shall examine it in the tissues common to all the viscera, in the cellular and the serous tissues.

3. Thence we shall pass to the apparatus of respiration, starting from the larynx, where also we have seen inflammation.

4. Then come that of the circulation, in which it will be interesting to view the inflammations in their secondary, after considering them in their primitive point. Here we shall establish a division between the inflammations of the centre of the apparatus and those of its prolongations.

5. The nervous apparatus will be placed the last. We shall then behold inflammation in the nervous centre and extremities, as far as it is possible to distinguish them from the tissues in which they are mixed up, forming a very important question; for veritable phlegmasiæ, involving the nerves of a capillary tissue, are daily put forward as neuroses, whereas they are not confined to the nerves.

Such is the plan we propose to follow. The importance of the inflammations of the assimilative apparatus, with which we are first of all to be engaged, will be felt by you in the exhibition we are about to make of them.

Gastro-intestinal Inflammations. — We speak of the inflammation of the mucous or villo-mucous surface of the intestinal canal; the muscular and cellular tissues entering into its composition may participate in this inflammation, but are rarely the primary seat of it; moreover their inflammations are far from evident, are too circumscribed, and exert too little influence over the functions in general to be clearly diagnosed. In order to get at a diagnosis of limited internal inflammations, or such as are situated in tissues of a small degree of vitality, an immense habit in pathology and pathological anatomy is for the most necessary, and is only obtained by repeated observations, comparisons, and deductions, and after becoming familiar with the numerous symptoms exhibited by the numberless shades of inflammation.

The causes of the inflammations of the internal membrane of the digestive canal are exceedingly numerous. In passing them in review it will be necessary to place them in an order that allows of their easy recollection, and we will found this order on the materials of hygiene. I habitually begin with those that are connected with the functions of the organ, and observe how far its exercise or action may conduce to the morbid condition: it is a physiological mode of proceeding. Thus we place the *ingesta* into the digestive tube in the first list, omitting, for the present, those which exert a specific and poisonous action; of these we shall speak in a separate section, and meantime confine ourselves to the most common, the most numerous, and the most avoidable causes.

To live we must of necessity be brought into contact with a certain number of agents whose action we cannot avoid, and which we ought to know how to manage; of this kind are aliment and drink. In these the causes of inflammation are too often conveyed in the shape of condiments, sauces, fatty substances, &c., which all excite the stomach to inordinate action. Some indi-

viduals support this kind of alimentation, but others cannot, and in them inflammation appears. Instinct informs us, by the feeling of thirst, of the explosion that threatens, and we prevent it by the use of cold drinks, lemonades, ice, and other refined correctors; in this manner we neutralize the superexciting causes of the digestive organs as far as may be, but not always successfully. In the first list, therefore, of the causes of intestinal phlegmasiæ, we place too stimulating alimentation; were we to confine ourselves to what is essentially nutritive, fecula, gelatine, albumen, fibrin, milk, &c., all nutritious, without the aid of stimulants, we should be far less subject to those of phlegmasiæ; but people have created these sources of pleasure, and they hold by them. On the other hand, nature herself has united to nutritive substances of the animal and vegetable kingdoms, particular extractive principles: to meats ozmazome and salts: to plants, bitter, aromatic, and acrid principles: all the cruciferous and umbelliferous plants contain an irritating principle, exhibited in alliaceous vegetables, radishes, cress, celery, &c. These must be eschewed if we would avoid a gastritis: you will perhaps say that I am anticipating on therapeia—yet not so; I am only throwing light on the etiology of inflammation of the digestive canal, and I prove that direct and purely alimentary stimulation, may engender gastritis and enteritis. If you doubt this I will quote rubefacients to you; mustard, for instance, the phlogosing effects of which are, I think, sufficiently evident in the form of sinapism applied to the skin, and which therefore may readily be supposed to produce terrible internal inflammations. But this is not all: if you escape the immediate effect of all these ingesta, and you assimilate them without their having inflamed the organs in which they are deposited, the great quantity of blood they furnish engenders plethora, especially if the exercise is not proportioned to the consumption of them. You then carry within yourself a general and ever-attractive stimulant, that powerfully seconds the external stimulants that still form your food. Natural hemorrhages may be established, and be necessary to free you from the overfulness of the vessels, and to maintain health in an equilibrium; but should they be suppressed, here is a fresh reason why inflammation should take possession of the organs.

The materia medica also exhibits a train of substances which you take or prescribe with the best intentions, but which may produce the diseases now under consideration. Of this kind are tonics properly so called, which more or less resemble the condiments that are added by nature to nutritious substances; generally speaking, aromatic, hot, burning substances that cause a flow of saliva, astringents, actual sudorifics, even purgatives, are capable of inducing gastro-enteritis, especially if an inflammatory predisposition exists.

True some saline purgatives allay inflammations, but this is only when they have been reduced to a certain point; otherwise they only add to the excitation and make it pass into inflammation.

Nor must we forget the cerebral innervations, and let us call things by their right names. I might speak to ye vaguely of the passions, moral affections and intellectual labour; but I would be precise with, and materialize these causes. Are you convinced of their enormous influence? Do you not believe that when we study assiduously, when we are affected by strong passions and violent emotions, that the brain is strongly excited thereby? This excitation of the intracranial nervous apparatus never stands alone: it radiates through the nervous system, and everywhere causes disturbance; it quickens the heart's movements, injects with blood the mucous surface of the viscera, of the stomach as well as the lungs, and particularly of the duodenum; it even acts lower down in the trunk, and frequently after moral affections the fæces are expelled more forcibly, and the urine driven out copiously. The latter, it is true, does not always depend on a sanguineous injection, but on an impulse communicated to the muscles of hollow organs; but do not imagine the brain acts only on these muscles; so much does it act on the capillary system that persons under its influence may be attacked with hemoptysis, hæmatemesis, apoplexy, &c., and that those labouring under depressing moral affections, may suffer from jaundice and disturbed movements of the secretory organs, or from bilious vomiting, especially if they be highly susceptible individuals. Robust men who have never known sickness, have no right to judge of others by themselves; I have known physicians, men that were always in excellent health, laugh at me when I told them that it was possible for the digestive canal to become inflamed from a moral cause—stupid jesting! whether strong or out of health we ought, if we would profit by observation, to put ourselves out of the question, and not consider our own persons as the limit of all the facts that may be laid down; in medicine as well as in metaphysics, the neglect of this principle has led to a host of errors.

You may very well imagine that if a man is predisposed to inflammation, no very great influence is requisite to make him the subject of a phlegmasia. Take a convalescent that has been freely bled and kept to low diet, who is even beginning to support some stimulation, and put him into a fit of passion; you will see that nothing more is required to hurry him into a worse condition than he was before, and to give him a violent gastro-enteritis. Subject him to another kind of violent emotion and the same may happen. But enough on moral causes. They more particularly influence pre-disposed individuals, in pretty nearly the same manner as the suppression

of the hemorrhages does. If you happen to be more disposed to convulsions than to phlegmasiæ, these causes will determine convulsions: if the brain maintains a confusion, a state of irritation, insanity may be the consequence; here, however, we consider these influences as they are capable of producing phlegmasia of the digestive apparatus.

In the etiology of these affections, after the excess or aberration of innervation, I place the action of the *circumfusa*, and of these, that of the atmospheric is the most prominent. I would not venture to lay stress on this course, so evident is it, were it not that it has been called into question by certain sceptics, who love to doubt even the most staring facts, and who not having paid the attention to the causes of disease that we have done, are at the pains of rejecting every thing they cannot conceive of. Whatever such may affirm, the atmosphere is capable of producing inflammations of the mucous membrane of the digestive canal in two principal ways, by cold and by heat; and first by cold, which is the most frequent cause of them: there can be no doubt that the considerable diminution of the circulation of the fluids, which takes place in the exterior of the body when we turn cold, produces visceral congestions; but herein we must distinguish the general impulse from the particular effect it is capable of producing, and which varies according to the predisposition. If it acts on an individual provided with stanch gastric organs, but who has a delicate pulmonary mucous surface, it will produce a bronchial catarrh; if it acts on another whose digestive tube is more sensible, there it will concentrate its effects. In this way I first of all point out these facts in a comprehensive manner, before entering on the details: thus I have proceeded during the twenty years that I have been observing them in the hospitals. Thus also is it that the phrenologists proceed: they first describe the most prominent cerebral organs, and for that purpose they choose persons whose tendencies are the most decided, and their acts most characteristic; they then go on to establish their judgment, and describe the moral dispositions beneath the degree from which they stand.

I suppose it to be the end of the summer or of a mild autumn, in which no extraordinary cause has appeared. Both heat and cold being wanting, you see scarcely any diseases; but as soon as the weather becomes cool, we see abundance of gastro-enteritis: they are the first affections that are seen. Should the weather become warm again, they disappear and return once more with the cold. If you interrogate a great number of sick persons, you will most frequently find that they became so from this cause, which came upon them when in a state of inaction. Cold is the enemy of life; you endeavour to resist it by clothing, by food, exercise, occupations, and passions that re-

quire activity: but you cannot always be in breath, you must repose; then it is that cold seizes on you, and you may there and then fall sick, even without any predisposition, unless you have taken precautions. This is particularly remarkable in armies, after battles and forced marches that have exhausted the powers, when repose is sought for under the open sky; the same also will be observed in young recruits on whom sorrow is preying, and who are obliged to keep watch through the night instead of sleeping, as was their wont after the day's labour; after their night patrol, they lie down on ill-aired or badly covered beds, and sleep under the influence of cold; or if they are of the guard, they pass suddenly from a well-warmed guard-house into a cold air, &c. Those who have brought some money from home with them, think to mitigate their troubles and stifle their sorrows by liquors, of which they take in excess; and cold, sorrow, and excess, from the robust youths they were, make them sickly.

By thus observing the causes of diseases in masses of men subjected to one particular mode of life, a much better idea of their production is obtained than by confining ourselves to isolated cases. Add to this, that if the regimen of these men is changed, a predisposition in them is the consequence. Thus youths of the lower orders who quit the country to come to Paris and exercise inferior callings, such as water carriers, errand runners, &c. by which they hope to ameliorate their condition or support life, fall sick after a time; is it by a particular and specific influence? Not at all; these individuals are in the same plight as the conscripts referred to; true it is not by means of a faction that, with shouldered gun, they suffer the effects of cold; but it is by means of a station at a street corner, or post, by the avidity of gain that keeps them with wet feet near a fountain waiting their turn to draw water, by the parsimony that makes them ill lodged, ill clothed, and ill fed, with aliment that requires stimulating liquors to force the stomach to digest it. Both these classes of men, recruits, and labouring people of the town, are subject to similar influences to cold and unnatural stimulation of the digestion; and in both gastro-enteritis may be the result.

Among the *applicata* and the *gesta*, you may also find most powerful causes. Certain callings in the performance of which the abdomen is compressed, render liable to inflammations of the organs contained therein. Inordinate and permanent constrictions, such as those from women's corsets, occasion irritations of the abdomen, and make the wearers subject to obstinate disorders. Contusions of the same part, especially when there exists a predisposition, induce phlegmasia in it, of which the following is an instance. A young man had been cured of an intermittent fever by cinchona, but his belly remained hard, tense, and somewhat tender when he

was walking; some irritation certainly remained, though in other respects he considered himself very well; he chanced to fall, was carried to an hospital, and the following day was seized with a violent enteritis with threatening peritonitis, an effect that was owing to the shock received by his body, already in a predisposed state. Some men refuse to admit of such a thing as irritation; but what will you make of those exaltations of sensibility that manifest themselves in a thousand ways, and frequently for next to nothing, if you do not recognise shades in which these affections that are lower than inflammation can be ranged? How, without it, can you understand predisposition? Would you wait until the general disorder that is to be the consequence of it, manifests itself and proves the reality of its existence? In that case you cannot be beforehand with the mischief, and your want of foresight will scarcely be combined with the talent that is requisite to treat it properly after you have allowed it to form. Examine life, therefore, in all its modifications, and health in its smallest derangements, in order that you may ascertain when it is only still tottering; irritation is your best guide.

Blows, falls, wounds, every thing requiring surgical operations, come under the head of *applicata*. In traumatic fevers, what happens when external violence has been applied to our organs? An effusion of blood, a congestion of first serous, then sanguineous fluids and after all, inflammation, which comes on the more rapidly as the previous predisposition has been strong. Sanguineous congestion itself without wound or violence is a powerful cause of inflammation, though a less palpable one; it may take place without preliminary irritation, but determines it in tissues that are not accustomed to it, and they then quickly fall into the inflammatory state. Brown omitted an important truth when he said the blood was the primary stimulant of the organs, and that when accumulated in them to excess it gives them an inflammatory tendency; it is true he expressed this proposition in an abstract manner and without connecting it with the living tissues, but it is not the less valuable. When blood is retained in an internal apparatus in consequence of certain circumstances, a phlegmasia may be the result; these circumstances are a plethora, an excessive irritability of the heart, a vivid degree of excitation, the suppression of the menses in women, of hemorrhoids in man, of epistaxis, or any other habitual evacuation in a young man, the habit of high living, &c. This latter circumstance I have often remarked in young villagers coming from the country to Paris, and placed in comfortable houses where they were better fed than at home; six months after arrival, they were in a plethoric state, and were suffering under inflammatory diseases. In this case the san-

guineous system becomes full, the heart is more vigorous and drives the blood forward with impetuosity; a congestion and after it a phlegmasia occurs. Almost all those who have an habitual hypertrophy of the heart are in a permanently predisposed state to congestions of the epigastrium, of the hepato-gastric region, and, on the super-vention of the slightest cause, they are attacked with a gastro-duodenal inflammation which persists, and is renewed for a long time in the acute degree in young subjects, but become chronic in a more advanced age. In place of this hyphertrophic disposition of the heart, it may be some violent effort, a rapid and prolonged walk, rapid running (this is among the *gesta*), that accelerates the circulation and produces congestion; this is more particularly seen among troops, after quick marches, on their arrival at their destination; each one continues to go about his duties; and, these performed, they go to rest; then it is that a congestion forms and passes to the inflammatory condition, and more certainly if cold seconds the other causes. Here the cause is less simple than in the preceding cases, or rather there are several acting simultaneously, to wit, acceleration of the blood's progress, muscular fatigue, cold, and the consequent congestion and irritation.

Let us dwell a moment on the predispositions that favour the congestive causes. Observation proves, that sanguine and irritable persons, with voracious appetites, who eat and digest great masses of food, are the most exposed to acute phlegmasie of the digestive canal arising from these causes. This predisposition augments, if they have been a long time in action, without producing their decidedly morbid effects, or if, after undergoing several attacks of sickness, a perfect cure has not been effected; in the latter case a chronic inflammatory condition may ensue.

Let us also take account of the influence of heat. I confess that at one time it appeared to me more powerful than cold; but on paying renewed attention, and multiplying my observations on collections of men transported to various latitudes, I became convinced that the majority of gastro-enteritis is caused by cold. Heat, when moderate, prevents them to a certain point by facilitating the passage of the blood to the exterior, and towards the secretory apparatus, which purify it by dispossessing it of its superfluous and useless parts. But when this heat is considerable, and causes great exhalation from the skin, it causes increase of thirst, which thirst is the first sensible effect of heat, and announces that the digestive canal is in a heated state, and its mucus becoming scarce; the fluids you then take are absorbed more rapidly than usual. If this ardor continues, the inflammatory condition may supervene; it is easy, however, for men

that pass from cold into warm climates, to obviate the inflammatory explosion if those climates are salubrious; but if damp fogs and cold winds prevail, and if to these miasmatic exhalations are added, the case is vastly different. In warm latitudes a considerable evaporation takes place during the day, principally on the sea shores and banks of the rivers; and the vapour, in precipitating during the night, produces atmospheric cold. Add to this that the days and nights are there of almost equal length; without these two conditions they would scarcely be habitable: were the days in the torrid zone as long as those in the frigid zone, no man could exist in it. The exaggerated action of the skin acts sympathetically on the digestive canal, and the more it augments, the more the latter becomes irritable. This canal is therefore placed in a state of inflammatory predisposition, upon which cold and dampness ensue, and give rise to internal congestions and inflammations of excessive violence; so that here too we may say that cold has very much to do with their development, and it is more reasonable to suppose so, as man mostly prefers a residence on the shores of the sea, or the banks of large rivers, where it is cooler than in the interior. This is a distinction that I now make for the first time, and which to my knowledge has been no where else made; and it is confirmed by the manner in which Europeans most readily acclimate themselves in equatorial countries; they are told to go during the summer, and live in the vallies and plains, away from the banks of the rivers.

Remains to mention the part which the fluids may enact in the etiology of gastro-intestinal inflammations. Plethora in itself, consisting as it does in a predominance of fibrine and cruor, only constitutes a predisposition; a determining agent is requisite to make inflammation supervene. If people are fed on animal food combined with aromatic and stimulating substances, they give the sanguineous predisposition an increased activity. The urine and other depurative fluids become more irritating, but this scarcely constitutes anything but a more powerful predisposition, and almost invariably directly irritating causes are required to cause the outbreak of the inflammation. The influence of other inflamed tissues is also to be appreciated in gastro-enteric phlegmasiæ; we have spoken of such in treating of external inflammations, and we shall return to it hereafter.

These inflammations of the digestive canal are a most important subject, for having been hitherto unknown, they are now the object of examination and discussion to all medical men. These discussions will continue until the general opinion has had time to become fixed. Men who proceed attentively in the study of one object, become acquainted with it long before others, and are bound to grant

those who give less attention to it, or are endowed with less powerful faculties, the means and time for acquiring it. In this plight is the question of inflammations of the digestive canal at the present time: I say not this with asperity or with a sneer: I have nothing in view but the good of science, and if you sometimes see me testify impatience, it is only at the obstacles that are placed in its way. I have the happiness, or if you choose it, the misfortune to be an enthusiast of truth—that is all.

The inflammations of the digestive canal may be considered in the three principal regions of that canal; in the upper or gastroduodenal, in the central or small intestine, and the lower or great intestine, comprehending the cæcum, colon, and rectum. All these may be complicated, but there are cases in which they are more or less isolated.

As regards the mucous membrane itself, it ought to be considered in a much more extensive light than has been hitherto done, even by Bichât—a name I venerate for the stupendous strides he caused medicine to make during his brief career, and for the great share he had—and that I proudly attribute to him—as my master and chief guide in establishing the physiological doctrine, the basis of which he furnished. However, the mucous membrane of the digestive canal ought not to be considered simply as an organ of nutritive absorption and elaboration, but as an internal sense possessing the greatest influence, rich in nerves and nervous papillæ, and capable of transmitting stimulation throughout the economy, and chiefly to the nervous centres, whence it is everywhere reflected; and this it is that renders the inflammation of this part different from all others. 'If you read the *Traité Anatomique de l'Inflammation* of M. Gendrin, you will see how much he insists on the presence of these papillæ; I do not mention the physiological inductions he makes from them: I merely wish to draw your attention to this pervous exuberance of the gastro-intestinal mucous membrane, and to point out to you beforehand the reason of the peculiar physiognomy of these inflammations, which is also that of their numerous forms, of their multiform causes, and of the slowness with which they have been recognised. In enumerating these causes, I did not sufficiently insist on a set of modifiers to which I must now return. I allude to drinks, which are not only used for the purpose of satisfying our thirst, but as luxuries.

If you would form a just idea of the action of these fluids, you should divide them. The least active are cider and beer, and other analogous beverages made from vegetable substances in a state of forced fermentation. These are hurtful on account of the acid and bitter principle they contain, and which in some degree correct their effect by their diuretic property; still they are intoxicating, and if too freely taken may stimulate the

stomach in a noxious degree; cider especially, from the mucilage it holds, may produce dyspepsia. Next comes wine, which is divisible into numerous sections. Wines that contain more acid than alcohol are less exciting than those which include those principles in the inverse proportion. But acid itself is an excitant, since all concentrated acids are corrosive; the superexcitement produced by acids depends on the state of the gastric passage, and cannot sometimes be tolerated even when diluted with water. Southerly wines which contain great proportions of extractive principles, of colouring matter and alcohol, more readily cause gastritis than the preceding ones. Sweet wines have this property in still higher degree. Those which have the least of it, and which stimulate the stomach the most favourably, are old wines that time has deprived of their alcohol and colouring principle—Bordeaux wines, for instance: persons who desire moderate gastronomic joys prefer these, while those who require excitement seek the strong kinds of wine: taken in moderation they rarely induce gastritis. Sweet wines, as those of Malaga, Jurançon and the Pyrenees, are treacherous by their mild taste and by the alcohol they are charged withal: while drinking them, you would imagine you were swallowing milk; but they are fiery and light up a permanent ardor or exaltation of the visceral nervous system.

There are some beverages which in their preparatory stimulation to gastric inflammations act roughly and cause such a degree of irritation as to produce catarrhal affections: of this kind are bad cider and wine. Such is the case also with acid vegetables and putrid aliments which are digested and elaborated with difficulty. Agents of this kind produce a mischievous stimulation on the digestive canal, that gives rise to acidities, diarrhoea, mucous flux, in short to catarrhal irritations, and to that form of gastro-enteritis which has latterly been attempted to be transformed into a particular disease denominated *dolhinentery*. On the other hand, fine and choice wines exalt more particularly the nervous tissue of the mucous membrane, or its nervous papillæ, and induce more purely inflammatory gastritis.

Among medicinal agents also there are some distinctions to be made. Bitters for instance, almost always act in a similar manner to choice wines; whereas tonics, such as saline and mineral substances, occasion a mischievous shade of gastro-enteritis that makes inroads on the very structure of the tissues. Every medicine has its own mode of action as well as its day of fashion, during which people are occupied in ascertaining its effects, and beholding the fall of its *prestige*. Such is the case with calomel, and the abuses of it in these days may be readily verified. I will venture to assert that both it and all mineral substances indiscriminately employed produce a gastro-enteritis, that puts in

jeopardy the irritability of the mucous membrane: those who have abused it, have their digestive power ruined, and never properly recover health.

—o—

MANUAL OF OPERATIVE MEDICINE,

BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

Of Bleeding in the external Jugular Vein.—

The patient being seated and his breast and shoulder covered with a cloth several times doubled, a thick compress is to be placed on the vein close to the clavicle; a handkerchief is to be rolled up and placed upon this, its two ends being carried into the opposite axilla, where an assistant holds and draws them tight. The vein now swells, and the operator, placing his thumb on the compress and his forefinger an inch higher on the jugular vein, in order to stretch the skin and fix the vessels, passes his lancet pretty deeply, and makes an orifice larger than when operating on the arm. If the blood does not flow, the patient should make movements of mastication. If it runs down the neck, it may be directed into the basin by a card folded into the form of a trough. The bleeding ended, the compress is to be removed and the wound closed with plaister. If that be not sufficient, a compress may be added held by a circular bandage tied round the neck with a moderate degree of tightness.

Several other vessels have been recommended. The ancients bled on the hands and fingers; some authors have proposed the frontal, angular, lingual &c.—Lisfranc even the cephalic, where it is found between the deltoid and pectoralis major. But where bleeding from the veins we have mentioned is insufficient—and the same is the case with regard to leeching and cupping—our best resource is arteriotomy.

5. *Of Arteriotomy.*—The only artery that is opened is the anterior branch of the temporal artery, which is easy to follow under the skin of the forehead, either by the sight or by feeling its pulsations with the finger. The patient seated or lying, the point where the incision is to be made may be marked with the nail. The skin is to be stretched with the left thumb and forefinger. With the bistoury held in the third position a short incision is to be made, rather by pressing than sawing, so as to divide the artery partially. The artery may be compressed by three or four pyramidal compresses secured by a circular bandage, which may be left on eight or ten days, or till the artery has become obliterated.

SECT. II. REVULSIVES AND EXUTORIA.

1. *Of Sinapisms.*—With mustard-meal and

cold water cataplasm is formed, which is to be applied bare on the skin. In about three hours the skin becomes red, tumid, warm, and painful; at this time the cataplasm should be removed. It has been advised that we should add salt, oil, &c., but these additions are useless, and the ancients well understood that vinegar, so generally recommended, is an addition that enfeebles the action of the mustard. The liquor of Pradien is a kind of sinapism. It is spread over a linseed-meal poultice, applied bare to the foot or leg. The skin does not become red, but an intolerable pain is produced in the heel. In many cases of gout it is attended with wonderful effects.—(Halle).

2. *Of Vesicatories.*—A multitude of vesicating substances have been employed. In the present day they are confined to boiling water and cantharides. In using boiling water there are two methods of proceeding—that of *Mayor*, and that of *Carlisle*. In that of the former, a metallic hammer with a flattened head is plunged into boiling water and applied naked to the skin. Carlisle's method is to apply a fold of wet linen on the skin, and to move over that a nummular cautery heated to a dull red colour.

In applying cantharides, *the usual method* is to spread on linen or skin an epispastic plaister, surrounded by a border of diachylon about three lines in breadth. The plaister is to be covered with a layer of powdered cantharides either dry or moistened with vinegar. The skin is to be shaved and moistened before the plaister is applied, which is to be kept in its place by a bandage or other means. After twelve, eighteen, or twenty-four hours the plaister is to be raised. If we wish to produce only what is called a *flying blister*, the epidermis is to be punctured, merely the serosity allowed to escape, and the surface dressed with fine lint; if we wish to produce a *suppurating blister*, the epidermis is to be entirely removed, either by tearing it away or by cutting it all round with scissors. In Bosquillon's method, the blistering plaister is removed at the end of six hours, and if the skin be red, a linseed-meal poultice is applied, which sufficiently raises the epidermis. The object of his method is to diminish the time during which the cantharides are in contact with the skin, and thus to obviate their absorption and their effects on the urinary organs.

3. *Of Issues.*—An issue is a small round ulcer which is kept open by the insertion of a pea. It may be practised on any part of the body, except in the immediate neighbourhood of a bone, tendon, large vessel, nerves, or the middle of a muscle. The cellular interstices where the skin is far separated from the deeper seated parts, is usually selected, for example, in the *arm*, the fossa which separates the inferior angle of the deltoid from the biceps, and which may be rendered very apparent by bending the fore-arm and contracting the biceps—in

the thigh, the fossa situated on its inner and lower part above the knee and between the vastus, internus,² and tendon of the third abductor—in *the leg*, the fossa below and on the inner side of the knee which separates the inner head of the gastrocnemii from the united tendons of the sartorius, gracilis, and semi-tendinosus. An issue may be made with a bistoury, by incising a fold of skin so as to make a wound from four to six lines in length. It may be kept open for some days with a firm little ball of charpie, and then a pea inserted; the pea may be used from the first. The issue may also be made by the application of caustic potass, the mode of employing which we have before detailed. Or an issue may be made by fixing a pea firmly with plaister on a surface which has previously been thoroughly blistered. The pea will eat its way into the flesh, but it is a long and painful process.

4. *The Seton.*—This is formed by raising a fold of skin, penetrating it with a straight bistoury, or with Boyer's needle, and introducing a thread, or a band of linen unravelled at the edges, or a skein of silk. A portion of the silk is drawn through at each subsequent dressing, until the whole length is exhausted, and then a fresh skein may be introduced with an eye-probe.

5. *Of Moxa.*—A slight scar is produced on the skin by the combustion of an inflammable substance. A multitude of substances have been recommended; the tow used by artillery-men, flax, hemp, the pith of the sun-flower (Percy), the down of the leaves of mug-wort (Sarlandiere), phosphorus, camphor, essential oils, gun-powder, &c. Carded cotton is generally employed. In the *ordinary mode* of proceeding, the carded cotton is wrapped in a band of linen, which is sewn around it moderately tight, so as to form a cylinder, the diameter of which is from eight or twelve to twenty lines. This cylinder should be divided with a razor into portions of from eight to ten lines high. The moxa thus prepared, and held between a pair of forceps, in a piece of card perforated by a hole (Boyer), or by a particular *porte-moxa* (Larrey), is to be lighted at one end with a candle, and its other extremity applied to the skin, which should be previously moistened with saliva. The fire is to be kept up by gently blowing it; but at the Hôtel-Dieu they steep the cotton in a strong solution of nitrate of potash, which renders blowing unnecessary*. *Regnault* interposes between the skin and the moxa a thick piece of wet cloth. This method is recommended in hydrocephalus.

SECT. III. VACCINATION.—It comprises the means of collecting the vaccine matter, and the method of inoculating it. The

* A solution of acetate of lead is equally good.—T.

matter may be collected in a tube of glass, or the quill of a pen, hermetically sealed with sealing wax, and thus the matter may be preserved many months. Ordinarily it is collected between *two plates of glass*, the edges of which should be united by wax or isinglass, and they should be wrapped in sheet-lead, to preserve the matter from air and light. When collected on lancets, the matter of one vesicle is enough to charge several of these instruments, but it will not keep long. The most favourable time for collecting the vaccine matter is from the sixth to the seventh day; at a later period it loses part of its strength.

As to the *inoculation* of the vaccine matter, a multitude of proceedings have been described. We choose, as the simplest and surest, that employed at the Royal Academy of Medicine. The point of a lancet is charged with vaccine matter. If the vaccination be performed direct from one patient to the other, it will be proper after each puncture to recharge the lancet from the opened vesicle. If dry vaccine matter be made use of, it will be necessary to moisten it with a drop of water or saliva. Three punctures are usually made in each arm, about a finger's breadth from one another. They are disposed in a vertical line, or so as to form a triangle, but the matter is of little importance.

The point of the lancet being presented horizontally to the skin, is plunged under the epidermis about half a line in depth. Commonly a little blood flows, which is of no consequence. After we have left the instrument in the above position three or four seconds, it is to be turned in the wound, so as to open this and facilitate the introduction of the matter; and the flat surfaces of the lancet should be wiped against the borders of the wound. Each puncture will occupy seven or eight seconds. The wound is left to dry in the air, and care must be taken that the clothes do not rub it.

SECT. IV. ACUPUNCTURE.—The acupuncturating needle is usually made moderately slender, about two inches or more in length, terminates at one end by a point, and is surmounted at the other by a small steel handle. A small ring is added to the lower part of this handle, when the needle is intended for electro-puncture. There are two modes of making the puncture. In the first, the needle is applied perpendicularly to the skin, and the handle rolled between the thumb and finger, and gently pressed until it penetrates as far as may be requisite. The middle of the needle may be supported by the left hand, and on drawing it out the same rotatory movement should be made. In the second method the needle is struck on its handle by short rapid blows of a small mallet. It is quicker and less painful than the rotating plan.

Electro-puncture.—The needles being implanted by one of the preceding methods, a Leyden jar is discharged upon them by re-

peated shocks, or as they are put in communication by means of wires with the two poles of a galvanic battery.

M. Coster applies electricity without needles. Having rubbed one side of a bronchocele with a quarter of a grain of pure iodine, and having passed a galvanic current through the tumour, by placing its extremities in connexion with the poles of a voltaic pile, his treatment proved completely successful. He considers that by this method he facilitated the absorption of the iodine.

(To be continued.)

Reviews.

Digest of the Evidence given before a Committee of the House of Commons.—Extent of Intemperance in the United Kingdom. By John Edgar, Professor of Divinity in the Royal College of Belfast. 12mo. pp. 192. London: Bagster.

WE resume our notice of this work on account of the importance of the following evidence, which is the most correct we have seen on the subject. We, however, are firmly convinced that a moderate use of diluted ardent spirit is as wholesome and as essential to health, as that of wine or other fermented liquor. The Temperance Societies appear to us to have split on Charybdis in avoiding Scylla. They should not have attempted to proscribe spirituous liquors and pass over fermented. We entirely agree with them on the demoralizing effects of intemperance, but we totally deny that spirituous liquors are entirely the cause. The medical profession are of our opinion, as appears from the insignificant number which has joined the societies. We would suggest that the abuse of all liquors should be denounced in future, and when this is done, our brethren will universally promote the laudable objects of Temperance Societies.

“*Dr. Robert Greig Dods.*—2589. Have you had much opportunity of observing the habits of the lower orders?—I have.

“2590. Is there anything peculiar in the circumstances of those most addicted to intemperance?—There are three circumstances which seem to influence their habits; the first applies to those who have some small means of subsistence, independent of their own efforts to procure their support; the other refers to those who are perhaps superior to the majority of others in the same circumstances and condition of life, and are not unfrequently found acting prominent parts in convivial scenes; the third comprehends those who are regularly dull and sensual.

"2591. When want of employment has prevailed, have you noticed any improvement in their conduct?—I have observed less excess in the use of ardent spirits.

"2592. Do high or low wages tend more or less to habits of drunkenness?—I have noticed that habits of drunkenness are frequently very much increased by high wages; and I remember a circumstance which tends to place this fact in a striking point of light. During the time that pretty good wages were paid to the operative mechanics in the different districts in Scotland, habits of drunkenness prevailed very extensively. When depression arose, and they had less facility in obtaining support, of course tippling might prevail to a considerable extent, but fewer excesses generally were visible. When the depression was removed, and they felt themselves in comfortable circumstances, it was remarkable how quickly they returned to their previous habits of intemperance.

"2593. You think habits of intemperance are as prevalent among the middle classes as the lower classes?—I should think the use of ardent spirits as general, and excessive indulgence in them nearly as common.

"2595. And in the higher too?—The higher classes do not appear so intemperate in their use of ardent spirits, but the majority are by no means sufficiently moderate in wine and other pretty powerful stimuli.

"2596. What neighbourhood are you speaking of?—I am speaking generally of England and Scotland.

"2597. Have you known many persons moving in a respectable sphere in society whose character and success have been injured by such habits?—I have known very many. I have been given to understand that the last detachment of troops sent out to India included upwards of 60 young men who had been moving in respectable circumstances, and who had been brought to that condition chiefly by their intemperance.

"2598. Had been induced to enlist?—Yes.

"2599. Is it not true that the East India Company's army is frequently resorted to by such parties, who desire to go abroad to avoid the shame and degradation of being seen in the army at home?—It contains a great number of such individuals, very few of whom ever return to repair the disgrace and misery they have brought upon themselves.

"2600. Are excesses similar to those you have described at all common among those who are qualifying themselves for the learned professions as students?—I regret very much to say that they are too common.

"2601. In what branch of the learned professions; medicine?—They apply chiefly to medicine and law; perhaps more to medicine. In order to prevent the excesses to which such men go, and with the view of checking intemperance among other classes

of the community, an association of medical men, consisting of physicians, surgeons, and students, was formed at Edinburgh in February, 1832, with the 'Resolution to abstain from the use of ardent spirits, except for medicinal purposes, and to refrain from giving them to, or countenancing the use of them by, persons in their employment; and that as the promotion of temperance in general is an object of the institution, other liquors though allowed, if used to excess, must necessarily exclude from membership.' This association ranks among its members some of the highest names both in medicine and surgery, and has been the means of reclaiming several talented and promising individuals.

"2602. Do they take spirits as stimulants during severe study?—They rather take them as a relief from study; those who use them freely are generally negligent of study, or soon become so.

"2603. In the first instance, it is intended as a relief after study?—It may with some for a time or two at first, but if frequently resorted to, it unfits the mind for patient investigation, and becomes an agreeable diversion or rather substitute for intellectual effort.

"2604. Are the students of all the different professions equally characterized by such indulgences?—I should think there are very few among the students of theology; the cases are chiefly confined to students of law and medicine.

"2605. At the universities?—Yes, at the universities and colleges.

"2606. Does this habit materially affect their professional progress?—Exceedingly; so much so, that one of the most eminent surgeons of the present day stated in his class-room, in my hearing, that up to the holidays at Christmas, he had noticed the regular attendance of many promising young men; but after the holidays, he was grieved to find many who came very irregularly, and he ascribed their absence chiefly to the habits of intemperance into which they had been led during the Christmas recess.

"2607. Does it at all influence their intellectual or moral character?—It influences that still more perhaps than even their professional progress. I have known young men of exceedingly promising intellectual habits, and of reputedly high moral character, who by a few follies of that kind have become injured in both respects. I have seen young men, by habits of intemperance, not only prevented from making all further progress in professional knowledge, but so degraded before the world, that they have been banished from their homes, and either subjected at once to menial employments, or sent to some foreign station as a relief from the shame and ignominy which they had brought on themselves and their friends.

"2608. Do the same indulgences at all

exist among medical practitioners?—I regret to say they do to a considerable extent.

"2609. What are the general qualities of such men?—You find medical practitioners of that class generally of an agreeable and social character; they are what are called pleasant fellows, agreeable men.

"2610. Jolly companions?—Jolly companions; who, possessing a strong relish for society, and taking a prominent place in its entertainments, become addicted to habits which cause them to neglect their profession, and disqualify them for discharging its duties properly.

"2611. Have you known any flagrant evils inflicted on patients by such propensities on the part of the medical gentlemen who attended them?—I remember several most painful cases; in one instance, a patient who required surgical assistance received irreparable injury.

"2612. Describe the nature of it?—It was a midwifery case, in which the application of instruments was necessary, and the practitioner, from the state of intoxication in which he was at the time, applied them injudiciously and rashly, and left the patient during the rest of her life in a most miserable and hopeless condition.

"2613. Did the woman die?—She did not die, but dragged out a miserable existence. I remember several instances in which most valuable lives were sacrificed to the drunken habits of the medical attendant, who instead of treating inflammatory attacks and other severe maladies with promptness and decision, encouraged the patient to use ardent spirits as the best remedy which could be applied, for the base purpose of obtaining his share in the beverage. Such treatment of course not only aggravated the symptoms, but delayed the only remedies which could prove successful, and the patient sunk under an attack which, humanly speaking, but for the intemperance of his physician, might have been easily and speedily cured.

"2614. Are you aware at all of persons more correct in their conduct generally and more moral, clergymen and others, yielding to those habits?—Yes; I have the pain to know several clergymen who are addicted to habits of intemperance. I remember one who became a common soldier from such indulgences.

"2615. Was he expelled his profession?—Of course.

"2616. For gross and open immorality?—For gross and open intemperance. I know others who at present are filling menial offices, from the same indulgences; and I know several who have been expelled from their churches, and are living in disgrace with their relations or others, on whom they depend. In churches where the same strict discipline is not exercised over all the ministers, frequent excesses are by no means uncommon; the parties, however, are not interfered with, but are allowed to hold their

offices, to the annoyance and injury of the community.

"2617. Have you observed habits of intemperance in females?—I have; there is a pretty general tendency to the use of ardent spirits in certain circumstances among females, especially during the time of nursing; and there is a practice rather too common among females even in respectable life: I refer to morning calls, and the like, at which stimulants or cordials are taken, which are always more injurious than beneficial, and in time beget a love for ardent spirits.

"2618. Which custom you think leads very much to an increased desire?—Yes, and to a confirmed habit. This is so well known to medical men that a very eminent professor is in the habit of frequently cautioning his students against mistaking symptoms arising from the use of cordials, and the like, for those produced by actual disease.

"2619. Have you seen any bad effects arising to children from the use of ardent spirits?—Yes, some of the most lamentable effects. The principal cases in which they are administered are to soothe infants or little children, in the shape of small portions of gin-toddy and other stimuli; some parents practise the baneful habit of giving their children, even in health, small portions of their own stimulant beverages.

"2620. What effect is produced upon the constitution of the child by that habit?—The first effect produced is a sort of pleasant excitement.

"2621. What injurious effect has it on the constitution?—It leads ultimately to glandular diseases, especially of the bowels, to subsequent emaciation, and almost certain death.

"2622. Does it not prevent the growth and full development of the muscular powers of the child?—Exceedingly.

"2623. So that the habit of drinking, especially when begun early, leads to deteriorate the race?—Very much; alters their muscular and energetic character; and if the practice be continued, the child sinks under it at an early age.

"2624. Speaking as a medical man, should you say the progeny of intemperate parents were less healthy in all their functions than the offspring of temperate parents?—They are.

"2625. Is there any difference in the appearance of such children at their birth?—Sometimes not appreciable, at others quite distinct; the infant has frequently not merely a want of healthy aspect, of plump, round outline, but a starved shrivelled, and imperfect look.

"2626. Then as far as the effects of intemperance on the human constitution are deleterious, those effects are accumulative, being more and more deleterious in proportion as the offspring extend?—Certainly.

"2627. That is to say, supposing there

be drunken parents in the first instance, and the children of the drunken parents have become drunkards too, the offspring of the third and fourth generation would go on deteriorating too?—They would; and the worst of it is this, that the child of drunken parents inherits an hereditary predisposition to the use of ardent spirits; for parents suffering under disease of the liver, or any other organ, from the excessive use of spirits, gave rise to children whose constitutions possess strong tendencies to similar morbid actions, and these morbid actions not only lead to habits of intemperance, with the vain hope of relief from uneasy sensations, but are greatly increased by such practices. In fact improper indulgences of any kind, when persisted in by the parents, and repeated by their offspring, tend to debilitate succeeding generations, and render them liable to the most painful and incurable diseases; hence scrofula, and a host of other maladies.

"2628. So that you conceive the possibility of the race becoming extinct by excessive inebriety?—Yes, by such habits one generation after another becomes more and more effeminate, till they scarcely deserve the name of human beings.

"2629. Then, in a national point of view, considering the strength of the country to consist mainly in a vigorous and healthy population, you conceive intemperance to be a great national evil, and one greatly leading to the deterioration of the race?—Yes, a great national evil, constantly tending to produce those effects.

"2630. So that, in a national point of view, do you conceive it to be the duty of Government to interpose as far as it can do to prevent the further progress of this evil?—It is their imperative duty, if they wish to preserve a vigorous and athletic population.

"2631. Have you observed much the habits of soldiers and sailors?—I have to a considerable extent observed their habits, and find them of a very lamentable, intemperate character.

"2632. What causes seem to you to have contributed to form their habits of intemperance?—There are several causes; first, a fixed provision for their necessary wants, with the power of saving small sums, which at intervals they spend in drink; another grand cause is the example of their superiors.

"2633. Any other?—Perhaps the strong predisposing cause is the want of social and domestic comforts; together with the total absence of anything like suitable arrangements on the part of Government for the extensive and permanent improvement of their intellectual and moral qualities.

"2634. Does not the issue of spirits by the Government in rations to soldiers and sailors give countenance to the opinion that ardent spirits are necessary for their habits, and may not this also contribute to form the

habit of constant drinking?—It does in a very striking degree.

"2635. Do you think the issue of such rations beneficial or injurious?—Extremely injurious.

"2636. You can conceive no case in which they are necessary?—None, in which they ought to be regularly issued.

"2637. You can conceive many cases in which they are deleterious?—Almost every case.

"2638. At which of the universities has your experience chiefly laid?—At the university of Edinburgh.

"2639. The habit of drinking, I suppose, is first formed by the inducements of society, or from stimulants being supposed to be useful under a delicate state of health?—They are chiefly induced, among the students, by a love of social enjoyment, and by a dislike to study.

"2640. No man, when he intends to drink, intends to become a drunkard?—Certainly not; and no one thinks himself a drunkard though he may indulge to a considerable extent.

"2641. Has the habit of drinking generally a tendency to demoralize the mind?—A very strong tendency.

"2642. Makes it more difficult for the individual to distinguish between right and wrong, not merely in cases of drunkenness, but in other moral points of view?—Yes; and they prevent his being able to occupy his mind with high moral and intellectual questions.

"2643. Then it has a tendency to give him a disregard for truth?—A strong tendency to that effect.

"2644. It requires so strong an effort of reason or of morals for a man to throw off habits of intemperance, that the drunkard is to be pitied?—He must be treated like a child or a madman.

"2645. Then you conceive the Legislature would be acting the part of a parent towards the State by withholding the temptations to drunkenness?—Certainly; the most beneficial effects which could follow to an intemperate individual would be salutary restraints and want of facilities for drinking.

"2646. Speaking as a surgeon, are not wounds more difficult to cure where the parties have been addicted to strong drink?—They frequently resist all means of cure.

"2647. Then, as regards the efficiency of the army in times of war, it is highly important that temperance should prevail among the troops?—In order to enable them to undergo fatigue and make exertions of any considerable amount, they ought to be kept strictly temperate.

"2648. Is it not the fact that a man addicted to drinking may die of a slight wound, while a man of temperate habits will recover from a comparatively severe wound?—It is the fact.

"2649. Do you consider spirits properly

designated as poison?—Under a proper explanation of the term, they may be justly called poison; they are ranked by writers on medical jurisprudence among the narcotico-acrid poisons; their deleterious action depends very much on the constitution of the patient and the amount taken: small quantities seldom produce effects which the patient thinks to be hurtful; but, if repeated, they always prove more or less injurious; larger quantities frequently prove fatal, by directly producing effects analogous to other poisons, or by giving rise to other diseases, which, in a short time, cause death: very large doses often destroy life within a few hours, and are known to act on the same principle with other narcotics.

"2650. Are the usual effects of death by other poisons observable in cases of death from spirit drinking on a *post mortem* examination? That is, is there any difference observable in a death occasioned by spirits from poisons of any other kind?—The morbid appearances seen after death occasioned by ardent spirits exactly agree with those which result from poisoning caused by any other substance ranked in the same class.

"2651. Do you consider it dangerous suddenly to break off from habits of drinking?—Constitutional inconvenience would, to a certain extent, follow; but this could be easily removed by slight medical treatment. I might add, that the inconvenience is so very trifling, that it should not be taken into account by the Legislature; while the evil, if persisted in, is so great, both as it respects individuals and the community, that its cure demands their prompt and imperative interference. The abandonment of intemperate habits gives the chance of future comfort and health; but their continuance almost certainly secures premature disease and death. No one is safe from the approach of countless maladies, who is in the daily habit of using even the smallest portion of ardent spirits; the practice cannot possibly do any good, and it has often done much harm.

"2652. Now what in your opinion are the general causes that have led to the habits of intemperance that prevail?—They seem to me to be of a two-fold character; certain physical tendencies, and certain moral tendencies; the physical tendencies appear to be, first, constitutional predisposition; secondly, certain articles of diet; in the third place, improper sensual indulgences; and lastly, other habits, such as smoking, snuffing, and the use of other artificial stimuli.

"2653. What are the physical conditions of the system that lead to such excess?—Predisposition, which I have already mentioned in my evidence, seems to me one of the causes, which is extremely apt to be overlooked.

"2654. Whence arises this predisposition?—From the intemperate habits of the parents.

"2655. That would leave an hereditary predisposition on the part of the offspring?—Yes; and its mode of action I have before attempted to explain.

"2656. What are the articles of diet that produce a desire for stimuli in drink?—They are articles which are either improper in quality, or in quantity, or in both; those of the last class are well exemplified in the diet of the poor classes, both in Scotland and Ireland, which consists too exclusively of farinaceous food, such as meal and potatoes. Such articles, without a proper portion of animal food, do not afford sufficient nourishment, unless the quantity be considerable. This occasions too much distension of the stomach; indigestion and flatulence occasion a sense of uneasiness. This induces the patient to apply to ardent spirits for relief; the relief is felt to be agreeable, and as the articles of diet are still persisted in, the stimuli are again resorted to, and so on till the habit be confirmed. In England, among both poor and rich, the articles of diet which seem chiefly to lead to the use of spirits, are such as are objectionable, partly on account of their nutritive or rather indigestible qualities; large supplies of indigestible food, such as pork, pastry, puddings, pies, shell-fish, and other improper articles, are taken too freely by the mass of the English population, and are felt burdensome upon the stomach; and in order to relieve this weight by assisting digestion, in other words, to enable the stomach to go through its increased labour, small quantities of ardent spirits are given it by way of bribe. We know it is proverbial that certain kinds of diet, such as fish, certain puddings, and pastry of different sorts, require a dram after them; and the majority of persons who indulge in such articles seldom fail to use a little brandy, or some strong stimulant, as a corrective, according to their view of the subject.

"2657. But spirits do ultimately lead to indigestion, and to the diseases sought to be cured?—Yes; and I should say that government, while legislating for the cure of the evil, should take into account and fairly delineate the predisposing causes, and the inefficiency of other means while these exist. You never will make the English or Scotch population temperate to the extent desired, without giving intelligible information as regards the effect of their diet, and if possible, correcting their false notions respecting the real qualities of ardent spirits.

"2658. How do sensual indulgences lead to intemperance?—They act mutually on each other: intemperance leads to improper indulgences, and these again to intemperance. The demands which they make upon the vital energies seem to leave a sense of oppression, debility, and uneasiness, from which relief is sought by artificial stimuli: these in their turn, prompt to similar excesses, till premature decay destroys its thoughtless victims. Ar-

dent spirits are the *primum mobile* of that infernal machinery, whose complex movements have converted 'whatsoever things are lovely and pure' into every thing most base and polluted.

"2659. How does smoking lead to intemperance?—It begets habits of excitement, and produces a desire for fluid. Some men have the power to resist the use of any thing stronger than water; but the majority resort to powerful stimuli.

"2660. What are the mental conditions which favour intemperance?—They are various; extremes of any kind; such as fear, grief, disappointment, anxiety, want of consideration, want of self-esteem, the influence of fashion, and the like.

"2661. They might think if the population were better instructed as to the evil resulting from the use of spirits, that they would be less disposed to apply to them as a remedy in such extremes of mental oppression, &c.?—Yes; especially since there are remedies which could produce happier effects without injurious results.

"2662. Is there no reasonable probability of that information being speedily so circulated among the people as to put a stop to drunkenness?—There is a strong probability, provided those who are qualified to judge and give an opinion on the question were to record their judgment, and have it circulated through the country by means of newspapers or pamphlets.

"2663. The Temperance Society might spread that information with great rapidity through the country?—To a great extent; and I think they would do more for the cause by avoiding unceasing discussion on the moral question; for, however important, and however deeply felt it may be by even the mass of the people, yet unless men feel that their bodies are really injured, they will not be persuaded by the soundest arguments.

"2664. But as minds are differently constituted, the moral part of the question may be more immediately essential to some than the medical consideration?—These might be properly combined; and if the real physiological effects were fairly and intelligibly stated, and were enforced by moral considerations of the highest character, the public in general could not resist the evidence. When the Temperance Society says a great deal about the moral bearing of the subject, and the enormous evils resulting to the community from the excessive use of ardent stimuli, the public in general vaguely confess the truth of all they say, but they do not feel the force of moral obligation to be so great as decidedly to influence their conduct, especially when from habit they have been brought under the power of ardent spirits; but if you can bring the subject closely 'home to their own business and bosoms,' if if you can make it tell upon their persons, and show them that those habits destroy their physical enjoyment, and certainly lead

to the production of disease sooner or later, they would be more alarmed at the consequences, and more disposed to abandon their habits.

"2665. Are there no conditions of the system in which ardent spirits prove beneficial? are they not useful for long-continued mental or bodily efforts?—There are a few cases in which they may be administered with benefit under medical superintendence.

"2666. Do they not tend to lessen the exhaustion which such exertions produce? They are extremely injurious when given to restore vigour after fatigue, or to protect against extreme cold; for, in the first instance, they heighten the excitement, which was the evil complained of, and in the next, the relief is exceedingly temporary and transient, and leads to debility and languor, which afterwards greatly increase the evil, and soon leave the patient under greater languor and chilliness than before.

"2667. Has it come within your knowledge that the guards and coachmen of public conveyances have discovered that the water-drinker sustains the effect of cold better than the dram-drinker?—I have observed that circumstance, and it is now generally admitted as a fact.

"2668. So that here is an instance where an accurate knowledge of the effect produced has led to a reform in the habit?—Certainly.

"2669. And the extension of a similar knowledge in the other classes of society would be likely from motives of self-interest to produce the same effect?—Undoubtedly.

"2670. What moral influence could be brought to bear on the habit of intemperance generally?—The grand moral influence appears to me such as the Temperance Society attempt to exercise on the question; first, the example of the respectable and intelligent among the community, and next, a fair statement, without prejudice and without any exaggeration, a fair and candid statement of the legitimate effect of spirits on the human constitution.

"2671. What are some of the principal evils produced by intemperance on the constitution?—First, a dangerous general excitement; secondly, subsequent debility; those are the general effects produced.

"2672. What are some of the partial evils?—Diseases of the brain, of the liver, of the heart and blood-vessels, of the kidneys, of the stomach, of the pancreas, of the bladder, of the skin, &c.

"2673. Are there any other maladies, connected with the derangement of one or more organs, arising from intemperance?—Apoplexy is a very common result from intemperance, insanity is not unfrequent, mental delusions are often seen, delirium tremens, and a most fearful disease, which though not very common, has been repeatedly witnessed, spontaneous combustion.

"2674. Have you ever yourself known an

instance of spontaneous combustion?—I have not.

"2675. Do you know anybody on whose testimony you can rely for the information?—I know only those who have written on the subject, Grotzner, Beck, and others.

"2676. Are they physicians?—Yes; and I recollect a case given in the newspapers a few years ago of a lady in London.

2677. But from your knowledge, as a medical gentleman, do you conceive spontaneous combustion possible?—Quite possible.

"2678. It would not be prevented by the existence of the moisture there is in the body?—The moisture would rather tend to favour the combination of elements which are concerned in producing this horrible effect of intemperance. What condition of the system tends to such a fatal issue, or how the various fluids and solids of the human body acquire a chemical constitution fitted for such a phenomenon, it is difficult to explain; but it is well known that alcohol contains in itself all the elements of olefiant gas, with oxygen and hydrogen in excess, and by persisting in the habitual use of alcohol, it is not improbable that after a while its elements might assume that combination which would give rise to such a catastrophe.

"2679. Do habits of intemperance at all interfere with medical treatment in cases of disease?—That forms one of the strongest points of evidence on which a medicalman can give his opinion; there is not a single acute attack which persons are liable to, who are accustomed to the use of ardent spirits, which we have much hope of being able to cure; the probability, as compared with similar attacks on temperate persons, is as ten to one against recovery. The explanation is simply this: the acute attack coming on, requires the abandonment of intemperate habits, prompt treatment, free blood-letting, and other active remedies, which, without his usual stimuli, the patient cannot bear.

"2680. Are there any other habits that influence the patient's recovery?—Another very prevailing habit, which interferes with medical treatment, in a similar degree, is smoking. I have not seen one patient under any severe attack, or who had undergone any painful operation, who made the progress that might have been expected when this habit was suddenly abandoned; and I have always found it necessary to order a renewal of the practice for a time, in order that the patient might get more comfortably through the attack; but if the attack in either case should be so severe as to prevent the patient from continuing his habit of smoking or drinking, his chances of sinking against recovery are as a thousand to one.

"2681. You have mentioned several varieties of mental suffering, arising from intemperance; are any such cases more prevalent at the present day than formerly?—Mental dejection, morbid irritability, ungovernable passion, frightful delusions, confirmed

insanity, &c., seem more common, and are well known as leading not only to some of the worst diseases, such as aneurism, apoplexy, &c., but to the perpetration of the foulest crimes, as duelling, murder, suicide, &c.

"2682. In what class of society?—Chiefly among those who use ardent spirits.

"2683. Whether poor or rich?—Yes.

"2684. Was apoplexy a common disease among poor families?—It was much less common than now; diseases of the heart and blood-vessels was also of comparatively rare occurrence, but is now extremely common. I grant that a number of cases were overlooked formerly, on account of the imperfect method of investigating such maladies, and that now much ought to be ascribed to mental influence, on account of reverses of fortune, more common than formerly among the community; still the experience of medical men fully proves that the use of stimulants forms one of the principal agents in producing these untractable diseases.

"2685. And indigestion, which was formerly considered to be the disease of the rich, has that been on the increase among the poor?—Yes, very much; and diarrhœa during the last five or ten years has been both more common and more severe.

"2686. Among the poor?—Chiefly among them; but I would not be understood as saying that such attacks arose entirely from the use of spirits; a variety of other agents are concerned in their development; but the habitual use of stimulants more than anything else favours the occurrence of such derangement in the system.

"2687. What scheme should you recommend the Legislature to adopt for the cure of intemperance?—I do not feel myself prepared to give any thing like a satisfactory answer to such a question, not being fully aware to what extent Government can go on such a subject; but it occurs to me that all those whom the State has power to control should be placed under salutary restraints; for instance, certain prohibitions might be issued in regard to soldiers and sailors; and when paupers apply for parish relief, it should be ascertained whether they have been addicted to habits of intemperance, and if so, the lowest possible allowance should be given them. It might be wise also to prevent spirits being consumed on the premises, except in certain cases, as by travellers and the like.

"2688. Can you give any physiological explanation of the effects produced by intemperance on the constitution?—The facts that have been pretty well ascertained are chiefly the following: namely, that alcohol coagulates the albuminous and gelatinous parts of the structure, and corrugates the solid parts, as the muscles, &c. Its effect on the blood-vessels seems to be two-fold, increased excitement, and contraction of the diameter of the vessels; this tends to produce enlargement in some parts of the blood-vessels, or effusion,

should their coats give way at any part of their course; diseased deposits are frequently formed where a branch is given off, or in some of the wider portions of the blood-vessels, which give rise to most painful symptoms, such as are common in gout and rheumatism. Increased excitement also, from an inordinate use of stimuli, maintained for a given time, diminishes in proportion to the healthy functions of the organs, and leads slowly, though certainly, to alterations both in structure and function; in this way we may account for diseased liver, diseased kidneys, diseased heart, and symptoms which indicate these in the effusion of serum, which occurs in different regions of the body, and is called dropsy, water in the chest, and general anasarca. Very striking effects are produced also upon the nervous system, as is manifested in the imperfect muscular contractions visible in a state of intoxication, in tremors, palsies, and other maladies which not unfrequently afflict the victim of intemperance. Emaciation and debility, which are very common characteristics of those given to habits of spirit-drinking, proceed from the constitution being robbed of its proper supply of nourishment, while at the same time it is compelled to carry on increased action; this throws it too much upon its own resources, and increases the process of absorption above that of nutrition; so that the body soon assumes a shrivelled and aged appearance; besides, the glands through which the absorbent vessels pass, being kept under constant irritation, become enlarged, hardened, and variously altered in structure, till at last they cease to carry on the functions to which they are destined, and the fluids which they used to transmit become effused into the surrounding parts. The diseased deposits which occur at the heart and along the blood-vessels, seem to be produced by the efforts of the minute vessels which supply these organs to resist the injury that might result to the larger blood-vessels from their increased action, produced by the presence of ardent stimuli; in other words, a given amount of blood, with a given force, and in a given time, circulates through a set of tubes contractile and expandible up to a certain point; these tubes are of a certain length and diameter, and in their healthy condition are capable of affording passage to the blood, according to the usual rate and quantity; but when their diameter is diminished through the influence of spirits, and when the frequency and force of the circulation is, from the same cause, considerably increased, the vessels become strained in some part of their course, and the vital energies, which instantly attempt to prevent or repair the injury, throw out fluids which become coagulated, and remain as mechanical obstacles to the proper discharge of future functions. Many lamentable specimens of morbid deposits are furnished by habits of intemperance, and many 'wearisome days and restless nights'

become the purchase of such thoughtless indulgences. On the same principle might we explain enlargement of the heart, of the aorta, and other parts of the arteries, apoplexy, coma or lethargy, and the like; always taking into account the influence of vital action, and a combination of other causes aiding or resisting the various results. It were easy to extend my remarks on this part of the subject to a much greater length, but enough has been said to convince those who will yield to facts, of the injurious effects ardent spirits, when used even moderately for any length of time. If the thoughtless consumer, or zealous advocate of strong stimuli, would accompany us to a few *post mortem* examinations of individuals who have persevered in such habits, or were called to witness life in the sufferings they previously endured, they would feel horrified at their own folly and ignorance, and if they were wise, would never touch the dangerous bowl again. But whatever men may think, and however they may act, still it is true that the use of ardent spirits, now so prevalent, is one of the greatest evils that has ever befallen the human race. It is a second curse, which seems destined completely to destroy every blossom of beauty and virtue, which the first left blanched and drooping here and there upon the face of the earth.

"*Dr. Cheyne.*—Ardent spirits are very destructive to health, and may be deemed a poison. Writers upon Toxicology include ardent spirits in the list of poisonous substances. I do not conceive ardent spirits necessary in circumstances of health. I have no doubt, if a man beginning at twenty, were to take one large glass of spirits regularly every day, he would thereby affect the duration of his life, probably abridging it by at least ten years. The subject has been before me all my life, and I think I am safe in saying so, supposing two ounces of spirits (one glass) were to be taken every day. I never knew a person who got into the habitual use of ardent spirits, whose moral character did not suffer in consequence. The entire abolition of ardent spirits would be a great blessing—the greatest blessing.

"*Dr. Ellis* declares that, medically speaking, the use of spirits is deleterious in itself, and carried to excess leads frequently to lunacy. The use of fermented liquors, and particularly of spirits, is very conducive indeed to bringing on lunacy; it first of all acts on the stomach, then on the nervous system; it brings on diseased action, disorganization of the brain is the consequence, and all the dreadful results of insanity follow. If persons have been in the habit of drinking beer only, the effects are much sooner got the better of; abstinence from the taking of the liquor, and good management in the open air, and employment, very soon restore the tone of the stomach. In cases of drunkenness from spirits, where the nervous system

has got much deranged, it is often impossible to effect a cure. Out of 28 cases, admitted last year into the County Lunatic Asylum of Middlesex, reported as recent cases, 19 were drunkards, five of whom were females, the oldest not more than 36 years of age. The health of those who are insane from drunkenness is worse than those from other causes, and the proportion of deaths much greater. Persons becoming insane from habitual drunkenness retain the disposition to drink; in the Asylum at Hanwell half the cry is they can get no spirits. They sadly relapse when recovered from insanity. We had a melancholy case the other day, who had been with us and was cured, but he took to drinking again and stabbed a policeman.

—o—

*The London Medical
AND
Surgical Journal.*

Saturday, October 3rd, 1835.

—

MEDICAL SESSION OF 1834—1835.

ONE of our contemporaries has taken the trouble of abusing, in no measured terms, the present system of medical education in this kingdom, "the fraudulent ticket and certificate system," which by-the-by, is the same in all other countries in which medicine is cultivated. The remedy proposed for this fictitious evil is, that every surgeon should educate his apprentice, and qualify him for examination before the Royal College of Surgeons, and Society of Apothecaries. Now, it appears to us, that this intended compliment to surgeons is somewhat like what the world designates a French one. The writer well knows, that there never was, nor ever will be, a physician or surgeon so perfectly acquainted with the medical sciences as to pretend to teach the whole of them. We request our readers only to reflect upon the proposal, that a physician or surgeon could pretend or attempt to teach anatomy, physiology, pathology, therapeutics, including chemistry, materia medica, botany, obstetrics, practice of medicine, surgery, and medical jurisprudence. Universities and colleges have been so stupid in all countries as

to decide that there ought and should be a distinct professor of each of these sciences; but it seems they were in error. The object of the French compliment is however very obvious; we are really surprised that it was paid from so intelligent a quarter, as we feel thoroughly convinced that there is not a surgeon in the world who could be so presumptuous and insane as to imagine that he could teach efficiently the whole of the medical sciences. Such was the opinion of every well informed physician, surgeon, and apothecary of England, Ireland, and Scotland, who was examined before the Medical Committee of the House of Commons; but according to the gratuitous assertion of our sagacious contemporary, they erred egregiously.

But let us suppose that all medical schools were closed, that surgeons alone—for the physicians are totally proscribed—were to educate their apprentices; and then consider the proportion of these that could pass the examining boards. In our opinion not one in ten thousand would be approved of, or receive a diploma or licence.

It further appears to us that the said supposed pantophysiological surgeon could not be in practice, if he attempted to deliver proper instruction in anatomy, chemistry, materia medica, surgery, obstetrics, &c. &c., as six ordinary individuals are occupied in diffusing medical instruction according to the present system of modern education, and for three winters and two summers according to present regulations.

Verily the individual who would attempt this must be an ultra-radical reformer. Unfortunately for him, a knowledge of the science and practice of the healing art cannot be communicated, either by the power of steam-engines, or even balloons; and until it can, we fear the present system must remain unaltered.

—o—

THE MEDICAL PROFESSION AS IT IS,
AND AS IT OUGHT TO BE.

Mr. Dermott's Fifth Letter to George James Guthrie, Esq.

DEAR SIR—My last letter contained observations upon the inutility and some of the evil tendencies of enforcing a knowledge of the *dead languages*, and upon the spurious type of education supported, and artfully kept up, by the aristocracy in our national (non-national) institutions. We will now, if you please, continue our consideration of the opinions expressed by you regarding private schools of medicine. I have, you recollect, already replied in my former letters to the following assertions, amongst others, of yours:—That the medical community at large (the main bulk of which is composed of general practitioners, *i. e.* those who have passed both the College of Surgeons and Apothecaries' Hall), should not be electors of their governing body—that the general practitioners should never be elected members of the council or governing body—that surgeons unconnected with an hospital cannot teach anatomy properly—that private lecturers do not teach so well as those in hospital—that in proportion as their fees are less, so they give less information, and that it is in the same ratio inferior in quality. As to the validity or invalidity of these positions which you have advanced, or of my remarks in refutation of them, we must leave that to be decided by the tribunal of *public opinion*.

But to proceed. It was asserted by you, in your evidence, *that a teacher cannot render justice to his pupils, and properly qualify them, unless he is provided with a museum, costing at least 500*l.* or 1,000*l.**

You well know that this expense is beyond the reach of most private teachers. I will moreover meet this, which I conceive to be a mis-statement, by asserting that *preparations of the bones*, showing their growth, &c., are certainly absolutely necessary; but dried preparations of muscles, vessels, nerves, &c., neither teach the exact relative position, nor the natural appearance of parts; they are therefore of little or no use to the lecturer, but for show, when he is furnished with a good recent dissection of the parts he is teaching. All the more frequent variations in the distribution of vessels are met with in the course of a single winter season, provided the class has such a moderate supply of dissections as the Anatomy Bill does at present, and should, in justice, render; and a much better judgment can be formed of these variations in a recent state than in a dried and varnished.

A few *morbid preparations*, exhibiting the leading principles in pathology, and a few on *comparative anatomy*, may be of use to the anatomical teacher; but a course of anatomy

and physiology has hitherto only lasted three or four months: and, during such a short space of time, it was morally impossible that any teacher could extensively and efficiently enter into either pathology or comparative anatomy. The most eligible place for a museum of morbid preparations is at the hospital whence they were procured—where the morbid appearances can be connected with the symptoms as detailed in the case-book, and where clinical lectures should be (and should have been) regularly given, in connexion with the exhibition of those morbid preparations. *No hospital should be recognised as a fit place for the instruction of pupils, unless clinical lectures are regularly delivered in the institution, conjoined with a reference to preparations, the history of which would then be well known.* Collecting morbid preparations in this way at hospitals would not interfere with the decent interment of patients dying in those establishments, and consequently not with the prejudices of the less-informed portion of the community.

It was certainly a very broad mistake, when you stated that the lectures in the metropolis had of late years undergone a deterioration in consequence of the private teachers increasing in number. On the contrary, it can be truly stated, that at no former period have the lecturers taken such pains with the pupils in giving them so much public and private practical instruction, or combined so much physiology, surgery, or even pathology, with their anatomy, as at present, and this, I maintain, is principally in consequence of the good example of the private schools, and the competition thus necessarily produced between the public schools and the private. I believe I had the honour of being the first to adopt the combination of private instruction and examination over the *recent subject*, in addition to my regular lectures; and in consequence of the practical help which it afforded to really industrious students, the public teachers found themselves obliged to adopt the same measures, for which perhaps some may not feel very thankful, inasmuch as it gives them more trouble.

In support of your assertion regarding the inferiority of private schools, and the absolute necessity of having a very extensive and costly museum, you say in your evidence, "A young man presents himself before us, and questions are put to him in minute anatomy; for instance I will take the kidney. He will be desired to describe its structure, and the manner in which the secretion of urine takes place. He hesitates, and cannot answer. He is asked, 'Have you had the structure explained to you by your teacher of anatomy?' He says 'No, I never heard a word of structure.' 'Well, but you have seen the preparation of it in the museum?' 'No, sir, we have no such preparation in the museum.' 'Have you

any museum at all?" "Yes, we have a few preparations."

Pray, then, my dear Sir, do you mean to state that all those pupils deficient in minute structure come from the private schools, or that more lacking such knowledge are produced by the latter than from the public ones? If so, I must demand your proofs; the *assertion* having been advanced, in justice to the private schools, they should be produced. Even admitting there are no wet preparations of the kidney in a museum, most of my ordinary injections of that viscus, as seen by sections of it made in the dissecting room, run as minutely as most of yours in your pickled preparations. Which are best—mine in a recent state, or yours in bottle?

The *assertion*, or *insinuation*, that private teachers, as a body, skip over structural anatomy, is, as you must see upon further consideration, most unjust; but, at the same time (as we know that such an assertion cannot call for its support a single proof), it is most laughable and harmless. If structural anatomy is improperly skimmed over in some places more than others, I verily believe, from the testimony of many, that those places are some of the public schools; for instance, the latter terminated their present summer course early in July (therefore it was only an apology for a course), whilst the private schools honestly continued theirs to the latter end of August; and this, too, recollect, when more came from the country to attend lectures than during any preceding summer, specifically in consequence of the last regulations of the Apothecaries' Company. If the instruction at private schools is so inferior, why do pupils come from other schools to ours, to see our dissections, and hear our lectures, even when threats and remonstrances have been held over them by some of the lecturers at Bartholomew's Hospital, and by others, for so doing? Is it to be crammed? No; and you know that too, yourself; for I have been obliged to you, my dear sir, for many pupils by your direct recommendation.

You are, in some respects, like Pitt and Peel, for the flexible plausibility of your tongue enables you to turn anything to make it subservient to the temporary support of your argument, however bad the cause in which the argument is used; and the most artful part of your evidence was when, assuming an air of generosity, you stated, that as a *proof* of the liberal feeling which you and your conservative brethren of the council possessed towards the private schools, one gentleman who had just commenced as a private teacher, in Westminster, would be fully recognised the next winter, as you had no doubt that the said gentleman (Mr. Dobson) would "get up" a museum in his school by the next October. Now, I full well know that Mr. Dobson could lecture more scientifically with a single dissection than many other men could with

the aid of that and a thousand preparations besides. But you know, too, that there was then an understanding between yourself and Mr. Dobson, that his school should be in alliance with the Westminster Hospital, and that it should be *bona fide* the school of that hospital.

The farce of "getting up" museums according to the present mode, is nothing else than the scrambling together of as many parts as possible, it matters not what, from the dissecting room—

"Here *muscles* lay, most reverently stale,
Beside the tortoise with a coat o' mail."

And all this for the purpose of throwing out a bait to pupils, without, of course, knowing anything of the history of most of the morbid preparations. This trickery is analogous to the quackish exhibition of useless coloured fluids in a druggist's shop; in a dark night, however, these do prove of some use, for they are shop-signs which tell the multitude where drugs can be procured.

I have already stated, that when a course of lectures lasted only three or four months, there was not sufficient time allotted for any lecturer to enter into pathology and comparative anatomy, and, I would add, not even to do justice to human anatomy or physiology*.

As to the non-establishment of regular courses of comparative anatomy, for the attendance of pupils, who is to blame (if blame is to be attached to any persons) but the council of the college? Certainly not the teachers of human anatomy.

You, my dear sir, are liable to make mistakes, like all other talented men who think, speak, and act quickly. It was another *very broad mistake* to assert that the college had not power to institute fresh and proper regulations, as *proved* by some of their coercive bye-laws issued by them by virtue of their charter—one of which, regarding the non-recognition of any teachers, excepting those connected with hospitals, I have already alluded to in the commencement of my second letter.

In extenuation of these sins of omission (i. e. not having issued, as you state, a sufficiency of salutary regulations), you dropped, my dear sir, a most unlucky expression.—"Give us power," (you say to our chairman, Mr. Warburton) "and we will be as despotic as you please." It was something like the Newcastle expression (as applied to the right of the hereditary-privi-

* The course has very lately been prolonged to six or seven months, which will give the lecturer more time to do justice to his pupils. This fact should, however, be known to all pupils, for reasons stated in my letter of last week, although the insertion of that letter was refused in the *Lancet*, certainly not in consequence of inutility.

leged abusing the consciences of others), "Cannot a man do what he likes with his own?" But I must say it was not in correspondence with the impartiality which you always exercise, as far as my experience goes, in your examination of pupils from private schools.

In reference to your expression last alluded to, some persons more malignantly disposed than myself may say, "By these words shalt thou be judged, and out of thine own mouth will I condemn thee." You, conservatives, have yet to learn the first rudiments of politics as received by the political age in which we live; that coercion and despotism are incompatible with the spirit of the present age; that such expressions must necessarily be contemptuously spurned by the enlightened and talented medical community in England, although they might well have suited the dark ages of gothic night, when the feudal system prevailed, of which we now only see, thank God, the crumbling ruins in the form of obsolete institutions.

It is a fact, my dear sir, and the expression of yours last mentioned is sufficient to confirm it, that all the members of conservative corporations are found, upon investigation, to be perfectly blinded by their individual interests, and perfectly insensible to the intellectual and political condition of society—they are in this sense "a century behind the times," they are all going to *Gravesend by steam!*

Believe me, my dear Sir,

Your obedient Servant,

G. D. DERMOTT.

No. 15, Charlotte Street, Bloomsbury.

—o—

DUPUYTREN'S CLINIC.

Hernia.—We have already reported several cases of strangulated hernia, in some of which the operation had a favourable, and in others an unfortunate result. Very lately*, in particular, we detailed three remarkable cases which occurred at the Hôtel Dieu, and took the opportunity of carefully describing the mode in which M. Dupuytren proceeds, in the liberation of strangulated hernia, both in the male and female subject. We pointed out the rapid success obtained, in one of these instances, in which recourse was had to union by the first intention. It is by concentrating our attention on whatever particulars of importance each case may present, and by neglecting all fastidious and unimportant details, that the greatest services are to be rendered to science. A lengthy case, diffusely described, teaches nothing; while its salient points, depicted in a few lines, will facilitate comparisons with other cases, and may thus become of great value.

A new operation for hernia has lately been

employed by M. Sanson; and to one particularity of it we would especially direct attention. A woman fifty years of age had been subject to hernia for twelve months. She was brought into the hospital with this hernia strangulated; in which state it had been for eight days, after having being engorged for eight days previously. The bowels had not been opened for fifteen days. It was a femoral hernia of small size; and all the symptoms of strangulation existed; such as hicough, nausea, vomiting, &c. M. Sanson performed the operation on the day of her admission. An incision having been made through the integuments, the other coverings were divided layer by layer, until the sac was reached. It was found to be injected, thickened, and of a fleshy appearance. On incising it, several drops of serous fluid escaped; and a knuckle of intestine appeared, two inches and a half in length, partly enveloped in the mesentery. Both of these parts were black, strongly injected, and adherent. In breaking through the union which existed between the intestines and the mesentery, a little blood was poured out. The stricture was divided directly upwards, and the intestine was pulled a little outwards. A white circle was perceived round the part which had been constricted. The intestine was very much thickened; but was not considered in so bad a state as to contra-indicate its reduction. It was therefore, with some difficulty, returned into the abdomen.

After the operation a considerable quantity of serous fluid was discharged from the abdomen; but two hours afterwards, the patient had a passage from the bowels, without the use of medicine or injection. On the following day she was in a satisfactory state; the abdomen being soft, with very little pain on pressure, and no fever. The nausea, vomiting, and hicough, had entirely ceased. Nevertheless, the continued serous discharge (the certain index, according to M. Dupuytren, of a *dropsical irritation*) seemed to him to presage an attack of peritonitis; or, if we please, an *inflammatory irritation*. The numerous experiments which the professor has made, and the observation of what occurs after injection for hydrocele, has led him to the conclusion, that whenever a liquid, or any irritating substance whatever, is placed in immediate contact with a serous membrane, the first exciting or inflammatory effect which it produces, is a secretion of serum. In hydrocele, for instance, immediately after the operation, when the fluid which the sac contained, as well as the fluid injected, is completely evacuated, the serotal tumour disappears, and unless the case be complicated, the testicle has ordinarily its natural volume. The next day the tumefaction returns; and the scrotum regains nearly the same volume which it had before the operation. The inflammation then leaves the testicle and its envelopes; the serous fluid is re-absorbed; and the cure is complete.

* See the London Medical and Surgical Journal, No. 181, vol. 7, page 794.

It is to a new serous effusion that M. Dupuytren attributes the temporary return of the scrotal tumour to its former size. And that which takes place in the tunica vaginalis, also takes place in the peritoneal sac; and whenever after the operation for hernia, a considerable quantity of serous matter flows out, we have to dread a fatal inflammation of the peritoneum, or of the intestines. In the present case these forebodings were justified by the event. The woman was seized with abdominal tension and pain; the vomiting returned, the skin became cold; the pulse small and frequent; and the weakness very great. Emollients, both external and internal venesection, three applications of numerous leeches to the abdomen, and afterwards revulsives were tried without success; and the patient expired on the fourth day after the operation. It was designed to effect union by the first intention; but no adhesion took place.

When the body was examined, the abdomen appeared moderately inflated; and on opening it, the peritoneum was found intensely inflamed, with a great quantity of sero-purulent matter in both iliac fossæ. That part of the intestine which had been included in the hernia, was of a blackish brown colour, and presented the white circle we have before indicated. The inflammation extended for some inches in the interior of the intestinal tube.

—o—

EPIDEMIC FEVER ACCOMPANIED WITH TETANIC SPASMS.

IN the years 1596 and 1597, a febrile epidemic prevailed in the Bishopric of Cologne, in Westphalia, in the countries of Waldeck and Wittenstein, and in Hesse which was vulgarly called Kriebel-krankheit, Kriempfsucht, or Ziehende Seuche.

It commenced with twitching and a sense of numbness in the hands and feet, sometimes on one side, sometimes on both. Soon after the patient was suddenly seized with convulsions, at first affecting the fingers of the hands and feet, and afterwards the arms, legs, shoulders, hips, and the whole body, which was either coiled up like a globe or stiffly extended. These convulsions were attended with extreme pain, which forced the sufferer to cry aloud. Vomiting in some cases attended the first invasion of the disease. If appropriate medicines were used, the affection did not reach the head for several days or even weeks; but if these were neglected, the head also was attacked; in which case some patients were seized with epilepsy, and after the fit lay as if they had

been dead for six or eight hours; others were affected with coma or delirium, which lasted four days or longer, and was followed by impaired sight or hearing, or even by paralysis. On the cessation of the paroxysm the patient experienced a most immoderate desire for food. Diarrhœa afterwards supervened, and in most cases the hands and feet swelled, or there was an eruption of bullæ: sweating never occurred. This disease was contagious, and the latest period of the contagion extended often to six months and sometimes to twelve. (Sennert. Lib. De Febribus Epitome lib. iv. c. 16.) The author attributes this curious epidemy to pestilential ichors arising from unwholesome food in a time of scarcity, and affecting chiefly the brain and nerves. The disease was dangerous and intractable; those patients who were epileptic seldom lost the tendency to that disorder; those who were delirious remained stupid: some patients experienced a recurrence of the disease in some degree every year, in the months of December and January. The cure consisted in the evacuation of the depraved humours and the corroboration of the brain and nerves, the former by purgatives, the latter by antispasmodics and cordials, which two classes of medicines required to be alternated. The disease above described seems to have been an epidemic form of the *Raphania* so called by Linnæus from its being supposed to arise from the seeds of the *Rhaphanus Raphanistrum* being mixed with the corn. The *Raphania* or *morbus cerealis*, is said not to be uncommon in Germany and Sweden.

—o—

TYPHUS FEVER OF THE OLDER ENGLISH WRITERS.

THE typhus of the present day has by the operation of a variety of causes, become so changed from the putrid fever of the older English writers, that they appear like two perfectly distinct diseases; yet there is no doubt of their identity, and the comparison should teach us to be cautious how we regard any particular symptoms or pathological conditions as *essential* to fever, since what appears characteristic of the fever of one age, is entirely wanting in that of another. The following is a very striking case of putrid fever described by Huxham, who believes it to have been the most severe from which any person ever recovered.

"An eminent surgeon of a neighbouring town, of a thin and somewhat tender constitution, but constantly used to action and exercise, and frequently subject to fevers and scorbutic rheumatisms, from taking cold, &c., in October, 1741, fell into a kind of slow fever, attended with slight rigors, frequent flushes of heat, a quick weak pulse, loss of strength and appetite, with a great load at his breast, and a heavy sort of respiration. Notwithstanding this, he continued in his business, constantly riding and fatiguing himself for four or five days after this seizure. I met him at a gentleman's house, who was my patient; and finding him as above, and that his breath was even then very offensive, I earnestly desired him to take timely and due care of himself. Two days after, he being at a gentleman's in the neighbourhood, was taken all on a sudden with a very great faintness, and fell off his chair. Upon lifting him up, the company observed several livid and violet-coloured spots on his arms and neck. It was with great difficulty they got him home, though but two or three miles distance, he very frequently fainting by the way. The disorder increased every moment; he had vast langour, with pain and extreme oppression on the præcordia, and a perpetual sighing; his breath now stank abominably, and a fœtid bloody matter leaked continually from his gums, and thousands of livid, violet, and black spots appeared all over his body, on the trunk, as well as the limbs.

"He was bled to about $\frac{3}{4}$ xii from his arm, but this gave him no manner of relief, the oppression, sighing, fainting, and anxiety, continued as bad as ever, nay rather increasing; a violent hæmorrhage also broke forth from his nose, which continued from both nostrils; he was bled again to $\frac{3}{4}$ x about twelve hours after the former bleeding: neither did this give him any relief, but increased his weakness considerably, and he continued as anxious, restless, and oppressed as ever, without even the least sleep. The blood now not only issued from his gums and nose, but he also coughed up blood; indeed the bleeding from his nose had ceased somewhat, but it increased from his gums, and in a surprising manner blood now likewise dropped, though slowly, from the caruncle of one of his eyes; and several livid pustules on his tongue and withinside his lips, broke, and discharged a bloody, thin matter very copiously.

"The hæmorrhage being somewhat restrained, a bloody dysentery came on with severe gripes, and excessive faintness, and he was still exceedingly restless and very feverish: his pulse now intermitted every sixth or eight pulsation, and then fluttered on again vastly quick; he had likewise a constant tremor and subsultus. The hæmorrhage all this while continued from one part or other, and when stopped at one place, forthwith burst out at another; so that his

urine now seemed tinged with blood, being very dark-coloured, nay almost black. Soon after he was bled the second time, I was sent for, and hastened to him. I found him in the manner described, under an inexpressible anxiety, yet quite free from delirium, though he had no manner of sleep for several days and nights; his tongue was vastly black, and his breath so insufferably stinking, that it was greatly offensive even at a considerable distance; and his stools were so horribly nauseous and fœtid, that the very nurses fell into vomitings and faintness in carrying them off.

"I found that neither of the portions of the blood that had been drawn (not even the first) had separated into crassamentum and serum as usual, though the former had stood so many hours; but continued as it were half coagulated, and of a bluish livid colour on the top; it was most easily divided by the slightest touch, and seemed a purulent sanies rather than blood, with a kind of sooty powder at bottom. His hæmorrhage still continued, especially from the tongue, lips, and gums, with a perpetual dripping of thin bloody ichor from his nose; so that he was reduced to an extreme degree of weakness, with never-ceasing tremblings, subsultus tendinum, and almost continual faintings.

"What was to be done in this dreadful case? Would the hot, alexipharmac, volatile cordials and blisters have served him, as some might have imagined, considering his extreme weakness, faintings, load on the præcordia, tremblings, &c. But would they not have been certainly deleterious, would they not have certainly killed him? as they would have added to the stimulating acrimony, increased the fever, and further destroyed the crisis of the blood, already nearly quite dissolved, and reduced to a kind of putrid gore.

"I took it in this view, and as I had experimentally and repeatedly known the great use of the bark in preventing and stopping the advance of gangrenes, I gave him frequently of it in small doses with elixir vitrioli, premising a small quantity of rhubarb. Besides this he drank tincture of roses, with cinnamon water made very acid, and also a decoction of Seville orange rind, red roses, cinnamon, and a little Japan earth (as it is called) well acidulated; claret and red port, with about half water, he drank at pleasure. As the bark sat easy with him, I continued its use, and increased its quantity, giving with it some confect. fricast. sine melle to restrain the dysenteric flux; and yet I now and then interposed a small dose of rhubarb, to carry off any bloody, bilious, or sanious matter that might be lodged in, or leak into the intestines. In the mean time I ordered him to be frequently supported with rice, panado, sago, jellies of harts-horn well acidulated, toast out of claret or red port wine; and I

directed fomentations of aromatics and astringents, boiled in red wine, to be frequently applied to the whole abdomen.

"By this method, steadily persisted in, was this poor gentleman, through divine goodness, raised from a state of universal rottenness, as it were, to perfect health: not but that, for a very considerable time after his fever was quite gone off, he continued extremely weak; and even after he was capable of walking abroad, the hemorrhage from his nose would return on the least occasion, his gums would bleed on the slightest rubbing, and his breath continued very offensive for a long time. By the further use of the cortex, elix. vitrioli, &c., this also entirely ceased; but his legs and feet continued very much swollen for a much longer time, and his flesh all over the whole body remained exceedingly soft, tender, and sore, scarce bearing the least touch. Rhabarbarate purges, easy stomachic chalybeates, elixir of vitriol, pyrmont water with proper diuretics, and gentle regular exercise, at length carried off all those symptoms; and in about two or three months he recovered a good state of health, which he still enjoys."

—o—

EASTERN MEDICAL ASSOCIATION.

WE are gratified to observe that a Meeting has recently taken place at Bury St. Edmunds, for the purpose of forming a Medical Benevolent Association. It embraces six of the adjoining counties. We sincerely wish many similar societies will be forthwith established, and that our brethren in the country will follow the example we set to them in the metropolis, of the profession at the commencement of a new Medical Session.

—o—

ROYAL ACADEMY OF MEDICINE IN PARIS.

WE feel much pleasure in informing our readers that Mr. Crosse, of Norwich has been elected a corresponding Member of the Royal Academy of Medicine in Paris, a compliment which he well deserves for the talent he has long displayed as a practical surgeon.

—o—

THE late Gilbert Thomas Burnett, Professor of Botany at King's College, and to the Apothecaries' Company, has left a Mother and a Sister in a state of utter destitution. It is well known to his professional friends that his life was shortened by his unceasing and laborious exertions for their support. Eulogies upon the dead are too often lavished indiscriminately to obtain in general much confidence; but of Gilbert Thomas Burnett it may be said, without the slightest exaggeration, that he was highly respected for

his talent, and most warmly esteemed for his moral worth and probity, by all who knew him. It is hoped—it is confidently believed—that this appeal to the public, and to the Members of the Medical Profession in particular, on behalf of his family, will secure to them at least a temporary rescue from their urgent distress.

Subscriptions are received at Sir Claude Scott's Bank, Cavendish Square; at Mr. Probert's, 6, New Cavendish Street; and at Mr. North's, 66, Upper Berkeley Street, Portman Square.

—o—

PUBLICATION OF THIS JOURNAL.

IN reply to several correspondents from different parts of the kingdom, complaining of irregularity in the receipt of this Journal, we beg to state, that it is published every Friday at twelve o'clock (the same time as the *Lancet*), and that there is no reason why it should not be received at the same time as our contemporary. We shall at all times feel much obliged for private communications of this kind, and shall use every effort to trace the source of irregularity, which we assure our friends, does not rest with our publisher.

—o—

-BOOKS.

IN the press, and will be published early in October, Principles and Practice of Surgery, founded on the most extensive Hospital and Private Practice, during a period of nearly fifty years. By Sir Astley Cooper, Bart., F. R. S., House Surgeon to the King, formerly Lecturer on Anatomy and Surgery at Guy's and St. Thomas's Hospitals, now Consulting Surgeon at Guy's. Edited by Alexander Lee, M. A., M. D., &c., &c.

A Third Edition of Dr. Castle's Introduction to Medical Botany, greatly enlarged and improved, illustrated with plates.

On the Diseases of Women and Children. By James Blundell, M. D., to which will be added, Notes and illustrations, by Thomas Castle, M. D., F. L. S., &c. &c.

The Obstetrician's Vade-Mecum, or Aphorisms on the Application and Use of the Forceps and Vectis; on Preternatural Labours; on Labours attended with Hemorrhage, and with Convulsions, &c. &c. Illustrated with Sixteen Plates. Ninth Edition; with a Portrait of the Author. By Thomas Denman, M. D., Licentiate in Midwifery, of the College of Physicians London, and Honorary Member of the Royal Medical Society, at Edinburgh; considerably augmented and adapted to the present state of Obstetrics, by Michael Ryan, M. D., Member of the Royal College of Physicians, London, Professor of Medicine and Obstetrics, at the Medical School, Gerrard-street, Soho-square, &c. &c.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XVII.

Transmission of Irritation as a cause of Gastro-Enteritis—Gastritis.

As yet I have only mentioned in a general manner the transmission of irritation as a cause of gastro-intestinal inflammations; but it is a question that requires to be treated of more in detail. It is well known that on all occasions of the development of an inflamed point in the system, were it only consequent on a slight wound, incision, or operation—bleeding for instance—a disturbance in the system may supervene, which disturbance is an irritation. Those organs that possess the most nerves feel it the first; and the foremost is the brain, but it resists inflammation much more than others. In order to avoid the admission of the great frequency of gastro-enteritis, an encephalitis, disguised under the name of cerebral fever, was had recourse to not very long ago; but after some time the subterfuge was perceived to be untenable, and the name of dothientery was substituted—a matter that I shall explain at a subsequent period; meantime, let us rest upon the leading fact, that when irritation is developed in a point to a certain degree, it disturbs the nervous system of all the viscera, disposing them to sanguineous congestions; for instance, a man in good health undergoes the operation of lithotomy, before which he had no phlegmasia; three or four days after the operation—and it implicates parts that are in close approximation to other viscera—fever appears, and a gastro-enteritis or peritonitis comes on, under which the man sinks. Now, what takes place in all this? the dragged, lacerated, contused organ has transmitted the irritation to the entire nervous system; various organs feeling more acutely than usual, become congested, and more or fewer of them pass into a state of inflammation, of which some are more susceptible

than the digestive apparatus. But wherefore it more than another, you will ask; are not the lungs as sanguineous as it? Yes, they are so, and even more so; but they are not so nervous, they are not strewed with the same fearful quantity of nervous papillæ, nor are they provided with so considerable a ganglionic nervous system as the stomach, not to mention the multitudinous ramifications proceeding from the pneumo-gastric nerve. Indeed, this nervous predominance of the stomach would appear to be indispensable to the powerful motive that urges the animal to seek nutriment. It is therefore necessary that you should be fully convinced of this arrangement, and of the important part which, through it, the digestive canal plays; and this not only because it enables you to comprehend the frequency of its inflammations, but because it is upon it that you are bound to act in the treatment of disease; in fact, the apparatus in question, like a beggar, is ever calling out, "Give a potion, that I may imbibe it."

In summing up, we may say that when a phlegmasia occurs in any part of the body that is not the digestive canal, it is frequently the fate of the latter to suffer the most, and if it be inclined to inflammation, it is sure to fall into it. Here then we have a very essential cause to be borne in mind, with regard to irritations of the digestive canal. Subsequently, these irritations degenerate or not into inflammations, according to circumstances, predispositions, and the manner in which they are managed. I do not maintain, as some stupid people have said, that a contusion or wound always induces a gastritis; but I assert that if either be to any great extent, an irritation of the nervous apparatus ensues that is communicated to the gastric organs, which being more nervous than others, suffer more from it, and may be exalted to various degrees up to that of inflammation. In the slighter shades you may call this diathesis or what you please; but when an actual gastritis ensues, you must express yourselves in other terms.

So far, then, I think I have sufficiently laid down the idea I have of the manner in which inflammations of the digestive canal are formed: I might point out further pe-

cularities in the process, but such will be found in the particular history of the phlegmasiæ of each organ. Enter we therefore now into details, and first of all we will speak of those of the superior portion of the canal. Here however a difficulty presents itself; namely, that one region is seldom alone affected. To this I say, that we can always judge whether it is so in a predominant degree; do not therefore construe too rigorously all the expressions I use, nor when I speak of gastritis, believe that I assert the impossibility of duodenitis, jejunitis, or ileitis being accompaniments of it. Pay attention to the leading phenomenon, in order that by putting an end to it, the others may also disappear. I begin with the gastric region, where I shall first exhibit inflammation in its acute stage.

Gastritis.—Its specific causes are the most exciting of all, and they consist in strong mental emotions, and in the most heating aliments, and the most stimulating drinks. Almost always the stomach, the duodenum, and their appendages are the first to receive the influence of these causes and suffer therefrom. Here too I might mention poisons, and corrosive and burning substances, alcoholic liquors in excessive quantity, various mineral salts, that are capable of effecting a chemical inroad on the gastric mucous membrane; but I shall leave these substances that have specific properties to stand over to the section on poisoning.

The development of gastritis manifestly exhibits two forms, one slow, the other sudden; the former is less known than the latter, because in the progress of science, the most prominent objects are the first to be recognized. Were a man seized with gastritis after swallowing liquid chlorine, rectified alcohol, an acid, or arsenic, it would be readily detected, and admitted without hesitation. The onset would be rapid, acute pains would be felt at the region of the stomach, and increased by pressure; there would be a burning feel in the throat and mouth, it would be painful to swallow at all; the mildest fluids would fall as if on a denuded portion of the skin; sometimes they induce vomiting, like the most irritating drinks: in a somewhat slighter degree water may be retained, but will still cause an uncomfortable sensation, would augment the malaise, the inquietude, the sinister presentiments, and the prostration of the powers of the patient—in this shade gastritis is recognizable by every one: look to the following.

There are some persons who live sumptuously, who eat and drink beyond their wants, add refined processes to the joys of the table, and soon begin to have an increased appetite. Towards the close of their digestion they have a dragging at the stomach, which drives them to a closer approximation of meals; they eat eagerly, satisfy themselves, and are for a time easy. Meantime

they begin to have head-aches, burning at the stomach, and flushes of heat, which disappear after digestion is finished, and the appetite again comes on, accompanied with the same draggings of the now empty stomach. To such persons you may predict the accession of a gastritis, unless they change their mode of life. In fact, if they persevere in it the heat of the stomach no longer ceases with the end of digestion; they no longer feel the necessity of having recourse to aliments; the appetite fails; the gastric ardor becomes permanent; a dry heat of the throat supervenes, with violent and continued pains of the head, and to these are added complete lassitude of the limbs, and total loss of all desire for food. In such a state of predisposition it is that the acute state takes possession of them, and its incipient period is of varied duration. The individuals affected may ward it off for a time by some attention to diet, and by cooling drinks; but when once the predisposition is established, it is very difficult to destroy it by these precautions alone. Let them starve for a week, and then commit the smallest excess, it suffices to cause gastritis. In the gradations through which they pass they may become stationary at a latent point of super-excitement, constituting a shade of chronic gastritis, of which we shall have occasion afterwards to speak.

The disease arrived at the acute stage, the heat augments, the ingesta are vomited: his sufferings are so intense after taking food that the patient refuses to drink, and of course, to eat; thirst takes the place of hunger, and it ultimately is insatiable, for the stomach presently rejects even the lightest drinks; at the same time an excruciating pain, accompanied with inexpressible anxiety and malaise, is referred not only to the epigastrium but to the entire anterior and inferior half of the chest, as high as between the breasts; the whole centre of the trunk is the seat of a burning, furnace-like heat, and this sensation is the more decided as the inflammation frequently rises several inches into the esophagus: the skin over this region is tender and hotter than the rest of the body, as both the patient and the observer know. In the onset he has a feeling of cold, though there be increase of heat; the tongue is contracted, sharp, always red in the first degree: at a later period it becomes flatter and loses its redness, in consequence of the exhaustion of the sympathy. If the mouth be widely opened, a redness of the pharynx and a swollen condition of the mucous follicles at the root of the tongue may be observed. At the same time the pulse is frequent, the head painful, and there is a sense of extreme debility and prostration. Here again we have a very well marked and recognizable gastritis.

Let us now observe it in its highest shade of development, which is the sporadic

cholera morbus; the epidemic will be examined apart. The common cholera presents the following aspect: excessive pains of the region of the stomach, vomiting of ingesta, fatigue, exhaustion, and contraction of the muscles, particularly of the calves of the legs; frequently purging, shewing the participation of the lower end of the digestive canal in the irritation; after the vomiting has continued for some time, the pulse becomes small and weak, the extremities turn cold, the countenance loses all lustre, the eye-balls sink, the temples fall in, the patient seems nearly dead, and resembles a mummy. The weakness and smallness of the pulse here remarked is not a phenomenon altogether peculiar to cholera; all violent phlegmasiæ of the abdomen that are accompanied with pains affect the heart's movements, diminish its impelling force, and thus produce coldness of the extremities. This form of gastritis has not always been placed with the phlegmasiæ, because it paralyzes the circulation, and because people are in the habit of taking phlegmon as the type of inflammation. Some, looking to the nervous phenomena, have made it a neurosis; others, paying all attention to the evacuations of bile, make it a bilious disorder, according to the literal sense of the name it has. For me, I consider it to be a gastro-intestinal inflammation, with exaltation of the sensibility of the nervous papillæ of the digestive canal, an exaltation that becomes general and disturbs innervation. This innervation gives the first sign of disorder in the convulsions of the membranes; subsequently, it is diminished and interrupted by the implication of the heart, which becomes so weak that the patient dies asphyxiated, without a vestige of pulse. Such a case was brought to Val-de-Grâce a few days ago; the man was cold as marble, his eyes sunken; he was vomiting, and purged incessantly; we considered him as attacked with a gastro-enteritis having a choleric form, and we treated him with leeches; the vomiting ceased, but we were obliged for a whole fortnight to keep up revulsion to the external surface, in order to re-establish the circulation; at this moment his pulse is stronger than any in the ward.

The slackening of the circulation in cholera is not so mysterious a matter as some persons seem to think: it is the consequence of the racking and convulsive pain of the inflamed digestive canal. Some day or other this will be verified in exotic cholera, just as I have verified it in regard to our own. I maintain that in epidemics of gastritis and gastro-enteritis there are always some that go to the length of cholera; the most intense take place in predisposed nervous systems. Doubtlessly, when cholera attacks a great number of individuals, there must have been some more general cause than the predisposition to which I allude. The ac-

counts we have from Warsaw, Petersburg, Berlin, and other places, mention that drunkards were attacked before any others; and in some countries the disease only attacked those who were already in a state of gastric superexcitement. Behold, then, the connexion! it is of such a kind that you may readily comprehend that a gastritis being given, if it happens in one whose nervous sensibility is exalted by stimulation, it rises to the violence of cholera, and this the more easily as the temperature is hotter. Thus, the cholera is more common in hot than in temperate climates; but is this any reason why it should invariably diminish and cease as we approach northern latitudes? Assuredly not; for when heat ceases to stimulate, alcohol and other excitants are substituted; when people are deprived of the stimulus of a fine sky, they replace it by that of the internal and external parts. Men who are dedicated to science have less occasion for such, and on this score are less exposed and more happy than others, inasmuch as they find in intellectual excitement wherewithal to dispense with that obtained from drink; stimulus of some kind is absolutely necessary for life and the sense of life.

The cholera of these climes is with common consent allowed to have two different modes of proceeding; by one it causes death by the exceeding spasm, pain, and constrictions, in the space of from one to four days, and even a few hours—excessive inflammation of the stomach is rarely supported more than twenty-four or forty-eight hours. In less elevated shades, if well treated, a sudden cure may be obtained; if not, it changes into gastro-enteritis accompanied with violent re-action. Thus it is in epidemic cholera, and so I could have prophesied it would be.

After death by the most intense degree of sporadic cholera, the stomach and digestive tube are found shrunk and contracted, the mucous membrane red, inflamed, and frequently covered with a mucoso-purulent layer, with deep wrinkles, softening, and other disorders, which I shall describe in speaking of the inflammation that has pervaded the greater part of the tube; the pia mater and spinal cord injected, and the nerves more dense—I have seen the latter as resisting as tendons.

The prognosis of this affection is founded on the intensity of the disease, and the individual predisposition. You know very well that there are persons who live habitually with a shade of gastritis; these are the first to be seized in all epidemics whatever, and may be carried off in a few hours; in them there is no resource; they are dead before you can assist them. As to those who are more resisting, you may predict their fate by the pulse, the temperature of the body, and the state of the cerebral functions. If the blood no longer circulates in

the limbs, if cold prevails over the surface, and the senses are gone, you are no longer able to rescue them from danger. Those who remain in a medium shade, who vomit, retain their faculties and heat of the extremities, and in whom the pulse is not extinct, may almost all be saved.

The treatment has been much disputed. The ancients boldly gave water and acidulated drinks, in order, as they said, to dilute the acrid bile: modern classical practitioners imitate them: but after diluting this bile they give narcotics. The moderns have spoiled this precept by regarding the bilious evacuations as secondary only, and paying attention to the nerves alone: they give opium from the beginning, and forbid the diluents. In such as are able to stand this treatment there has been some success: but drinks are imperatively called for, and it is in vain that the physician forbids them. After a sedative which you consider to be very mild, the heat is felt more than ever, the thirst becomes irresistible, the patient turns restive, and you can no more prevent his drinking than you can a regiment passing by a river in the dog-days. Thus the patient becomes his own physician when he who advises is in error, and wishes him to struggle against his instinct. Those who use ether and other supposed sedatives of the same kind, heat and disgust their patients still more: if such treatment has not been fatal in the majority of instances, it is because the patients have slackened their thirst with cooling drinks in spite of all contrary orders. Not thus do physiological physicians proceed: they know that they have to deal with a predominating gastritis, with exaltation of the nervous sensibility of the stomach: consequently, if they reach the patient before the circulation is arrested, they immediately have recourse to antiphlogistics, to general bleeding if there is plethora, to local bleedings of the epigastrium, if the contrary is the case: they then use narcotics, ice, or the lightest cold drinks, in small quantity—and this treatment succeeds wonderfully. If the inflammation is not confined to the stomach, and extends into the digestive tube, they follow it up until it is extinguished.

After gastritis characterised by excessive sensibility of the stomach and intolerance of all ingesta, I have found this organ contracted, undilatable, reduced to the calibre of an intestine, and even unable to admit a finger, by the violence of the spasm. At this degree of intensity the disease ordinarily terminates in death, with violent evacuations, nervous and convulsive accidents, arrestation of the circulation, cold extremities, decomposed countenance, &c. Yet it is not impossible to see it end in resolution if the treatment be well managed; on this subject I told you that antiphlogistics were proper in the commencement, and

that, above all, it was necessary to be active with local bleedings.

Before proceeding further in the history of the acute inflammations of the upper portion of the alimentary tube, I must speak of the shade that depends on acrid, corrosive poisons: not that it differs essentially from that I have just described, but because it presents certain peculiarities, and furnishes several special indications. In the shade in question, the pain is more concentrated in the epigastric region, is excessively sharp, depresses the powers, takes away the strength of the limbs, and arrests the pulse: the vomiting is more incessant, and such is the exalted sensibility of the stomach, which is partly corroded, that it obstinately rejects everything as long as it has the power, and when it is lost the anguish increases, meteorismus comes on, the prostration of the powers is extreme, the patients fall into deep despair, and become convulsed. This shade, therefore, is specially characterized by the pain, which is of the most atrocious kind, and accompanied with a feeling of corrosion. Then come the commemorative signs, but these do not always appear. Men are sometimes brought to us who have swallowed brandy mixed with sulphuric acid, or pepper infused in brandy—a horribly burning draught: they frequently do not tell us the cause of their state, and of the excessive pain of the limbs: hence the necessity of not depending alone on the commemorative signs in forming a diagnosis, and of paying attention to the principal symptoms; and these are, as I told you before, the excessive pain, the imminence of peritonitis, and the extreme prostration, to which you may add the physical and chemical characters of the poisonous matters vomited.

Gastro-enteritis.—We now follow inflammation into a lower portion of the digestive canal. After commencing in the stomach, and staying there one or two days, it may extend into the duodenum and small intestines: it is then a gastro-enteritis, following on acute gastritis. It is generally difficult to determine *a priori*, when a patient comes with symptoms of gastritis, whether they will remain predominant, or diminish and give place to gastro-enteritis. What I now state is altogether of recent observation; the connexion between gastro-intestinal inflammations was formerly not at all understood. Like yourselves, I have paced the hospitals, and always considered that a gastritis could never be anything but a gastritis, an enteritis always an enteritis, and a dysentery always the same, having no idea that each of these might be transformed to the other: as long as I continued in this erroneous way of thinking I understood nothing of pathology. Need I repeat it? You must follow inflammation, step by step, in all the tissues it is capable of invading, and strive to recognize it by all the external signs that present them-

selves. If you persist in studying the histories of gastritis, enteritis, dysenteries, peritonitis, &c., and in isolating them, instead of being guided by this method, which associates and shews you them connected with each other, you will be under the necessity of substituting one disease for another, and only admitting it when it is found alone, that is to say, scarcely ever, you will have no knowledge of the pathological phenomena, and you will pass your lives in astonishment. But I say to you, study inflammation: look at it progressing, rising, descending, starting now to the right, again to the left: observe the action of modifiers, the manner of the patient's respiration, the changes in his digestive functions, the modifications of his morale, &c.: from all these you will draw your deductions, and medicine will then be a positive science in your hands. Guided by this method, you will say that inflammation, after pervading the stomach for two, four, or six days, so that you would imagine you had only to deal with an overwhelming gastritis, may cease in that organ and re-appear in the intestinal canal, so as quickly to change the aspect. In such case the patient has no longer so much thirst, or at least, if he has, he no longer vomits: he absorbs a much greater proportion of the fluids you give him, whence you may conclude there is no longer any constriction of the pylorus to stay their passage, the sensibility of the epigastrium diminishes, the central part of the abdomen becomes more prominent, meteorismus supervenes: if you strike the abdomen you find a resonance in those parts where there are not fecal matters, as remarked by M. Piorry: the patient does not suffer so much: the constriction and uneasiness are considerably lessened, and there is even a tendency to stupor: the pulse, previously contracted, fills out: the heat is spread uniformly over the surface: the tongue is as red as usual, but less contracted and moist: there is a greater development of fever, with exacerbation, each twenty-four hours. Remark that this group of symptoms may come on primarily without having been preceded by days of gastric irritation, or only after a few days, or even a few hours, of the latter. As for the pain on pressure, it is not well-marked—most frequently there is none: if, however, the disease recurs in one who has had it before, there will be some tenderness. Such is gastro-enteritis: further on I will mention the different denominations it has received: I only wish to picture its progress to you.

It is possible that, after a week or two of this state, you shall see the tongue expand, become more moist, the heat of the throat dissipate, the thirst cease, the stomach become quiet, the skin halitous, the urine, from being scanty and red, flow copiously and clear, the malaise disappear, some stercoral and bilious evacuations pass without

pain, the appetite return, and the patient request food: thus a cure is wrought.

It is possible that, instead of disappearing, it shall be followed by diarrhœa, after seven or eight days, and then the aspect is changed; that the diarrhœa is accompanied with pain; that all at once the pulse sinks; that the commencing moisture of the skin vanishes; that the latter becomes dry—not of that dryness that is manifested with excess of heat, but rather cold; that copious stools supervene, which cool the body, emaciate and sink the muscles, and which are followed by death in seven, ten, or fifteen days, or else by a chronic state, the appetite re-appearing. If the acute stage extends beyond this time the appetite does not return: delirium and subsultus come on, and the patient sinks, with the belly shrunk, and an extremely fetid diarrhœa. And what is the meaning of this? Why, that the inflammation has passed the ileo-cæcal valve, has extended into the large intestine, and has exhausted the patient by its excess, and by the abundance of the evacuations.

It is possible that, anterior to any other affection, the patient has, in consequence of bad regimen and digestion, had slight colics and purgings without any derangement of the appetite, and that subsequently a disturbance of the gastric functions supervenes: that suddenly the inflammation passes to the acute condition, seizes on the upper part of the canal, and suspends the evacuations: that then, after eight or ten days, the purging returns, followed by the symptoms I have already pointed out, and that it exhausts and kills the patient.

Now remark these three cases; diarrhœa preceding an acute gastritis, and stopping when the latter becomes predominant: diarrhœa continuing through the whole duration of the gastro-enteritis, and terminating fatally: diarrhœa succeeding gastro-enteritis, and ending variously. All this is possible: would you have me make of these possibilities so many groups of symptoms and particular and independent diseases; and is it not more convenient to study them as I do, and as nature presents them to us? But we have not come to the end: I will shew inflammation out of the mucous membrane, and disclose new possibilities.

It may, when predominant in the upper portion, act more especially on the brain, suddenly produce ataxic and adynamic phenomena, and kill the patient. It only requires for this effect a predisposition to encephalic irritation. Predominant in the middle portion, it may produce the same effects. If predominant in the lower portion, it will induce them less readily, because in that locality it is attended with evacuations which empty the vessels and prevent the congestion of the superior organs; and, moreover, because the nervous connexion between the great intestine and the brain

are more active than between the latter and the stomach, or small intestine.

Let us pause on these ataxic and adynamic phenomena, and in order to conceive of them, let us begin by calling to mind that all irritations of inflamed organs are referred to the encephalon and its prolongations, and thence spread throughout the nervous system. These converging stimulations irritate the cerebral substance, and give rise to the phenomena in question: this may be strictly proved whenever an inflammation exists in an influential organ of the economy; exasperate it, and you behold ataxic phenomena spring up; calm it, you see them disappear. This fact has been already observed in the inflammations of the exterior of the body, and you are the more likely to meet with it in those of internal organs; if you wish further confirmation of it, without having recourse to experiments that are only allowable in animals, follow the practice of the stimulating physicians, for *they* put no obstacle in the way of your seeing it. You will find that whenever a phlegmasia strongly influences the nervous centres, they become irritated, and may inflame, and that this more especially happens when inflammation has attained a high degree of intensity in the mucous membrane of the digestive canal. It is an eternal law established on innumerable facts, and so invariable, that I defy you to show me a man affected with disorganization of the villo-mucous lining of the canal in question, who has not at the same time some deterioration of the intellectual faculties; so much so, that without having recourse to manual examination, and from the manner alone in which the cerebral functions are fulfilled, I will tell you what condition that membrane is in, whether it is unchanged or altered, inflamed or softened, &c. Whenever, then, inflammation exists to great extent in the upper or middle portion of the digestive canal, be assured that disturbances in the functions of innervation will manifest themselves, and that you will have ataxy and adynamy, the former more in connexion with lesions of the superior, the second with those of the middle portions, and that they will be manifested by delirium, restlessness, subsultus, prostration of strength, coma, and convulsive movements of varied degrees according to the constitution of the individuals affected. So striking are these symptoms, that our hospital nurses, all ignorant as they are, when they tell us that a man with gastro-enteritis is delirious or not, is tranquil or restless, judge by that alone whether he is better or worse, and are far less under the cloud of error than many erudite doctors.

Inflammation may traverse the thickness of the digestive canal, and proceed to the peritoneum; this is seen in all periods of the disease, but more frequently when it

lasts a long time; sometimes it is observed from the very onset, and it only requires an ill-timed stimulation to cause it. At other times, in the space of fifteen to twenty days, but more frequently towards the close, after forty, fifty, or sixty, at a time when you think the disease on the point of being cured, when the pulse is diminished in frequency, the tongue moist, when you are full of hope, and the emaciated patient begins to smile, a perforation takes place, peritonitis supervenes, and in a few hours he is dead.

Another chance; the inflammation passes to the bladder in a given time, and you have dysuria. Do not imagine that when a patient cannot pass his urine, it is always owing to a cerebral congestion; it is the inflammation that has reached the bladder, and it may even reach the kidneys. I have seen most horrible nephritis, which I could only consider as an explosion of inflammation at, as it were, a tangent.

It may likewise invade the throat and larynx. In the highest degree of gastro-enteritis the tongue is always red, as well as the velum palati, and there is a feeling of constriction in the pharynx; the voice is grating and sepulchral; all the openings of the mucous membranes, which you behold to be red, and which you considered to be congested by a simple sympathetic influence, are in a veritable inflammatory condition; in these parts are included not only the mouth, the pharynx, the larynx, but also the extremity of the penis, and the vulva. M. Louis has verified the same views. It is the internal fire that seems to exhale by the gaps of the crater; the inflammation of the apertures of the mucous membranes is always in proportion to the internal inflammation. In the chronic stage this sympathy disappears.

The inflammation may be communicated to the lungs, and this is in some part explained by the similarity of tissue and the simultaneous application of the irritation. Long ago I remarked how irritation of the bronchial lining accompanies inflammation of the internal surfaces of the digestive canal, and that pulmonary congestions follow upon it, particularly in winter. You would be wrong to announce them as an essential accompaniment, or as necessary satellites of gastritis, any more than laryngitis or any other secondary affection that may or may not exist. Still, if you have gastro-enteritis to deal with in the winter time, you may be for the most part certain that they will be accompanied by bronchitis or by pectoral congestions in varied degrees, actual peripneumonies in some, simple congestions in others.

Further than all this, the skin fails not to take part in the irritation; the most compressed parts of it become red; a kind of erythema, that may proceed to phlegmonous erysipelas, takes place. Certain annual constitutions exhibit these erythematic and

erysipelatous affections in a prominent manner. They sometimes appear to alleviate or cure, at other times to aggravate the primary disease.

Phlegmons around the articulations, at the margin of the anus, &c. are observed to arise; but this is not always the case, and is dependent on the predisposition of individuals, the age, temperament, previous habits, &c. In infancy, you see congestions about the head; in adult age, in the winter season, and in persons with a plethoric constitution, the same take place in the lungs; in those who have employed an improper regimen, they occur in the digestive canal, in the liver; in those too assiduously given to study, or who suffer from grief, who are of the melancholic temperament and pusillanimous, the irritation predominates in the brain, and induces an afflux of blood thither; in those who have an irritated skin, or have had darts, it fixes on the skin, especially during the spring time; in the winter there is a concentration within the digestive canal and the lungs; in the spring and summer, there is greater facility towards congestions in the encephalon; in the autumn, there is a disposition to the predominance of irritation in the great intestine; in puerperal patients, there is tendency to inflammation of the uterine region, &c.

This is a vastly extensive subject, and requires further development; but for the present the above rapid description may suffice.

—o—

INTRODUCTORY LECTURE

TO A

COURSE ON THE THEORY AND PRACTICE OF MEDICINE.

DELIVERED BY DR. UWINS,

At the Free Hospital, Greville Street, Hatton Garden.

Winter Session, 1835-6.

LECTURE I.

THE objects of that science on which I am this day to discourse in an introductory manner, are manifestly those of counteracting or preventing the physical and moral evils to which man, in civilized society especially, is constantly obnoxious.

Respecting our power thus to dislodge evil and substitute good, much difference of opinion has always obtained. By some encomiasts, we are exalted almost to the eminence of the divine nature, while others have not only *en badinage* ridiculed our pretensions, but have argumentatively maintained, there is an absurdity in the very supposition that medicinal aid can be made to meet, with any avail, the wants and woes of our species.

The truth in this, as in most other matters, which are not capable of being brought into

the compass of the exact sciences, lies probably about mid-way between the extremes of implicit faith and sturdy scepticism. The sober judgment of mankind will be generally ready to allow a validity to, and repose a confidence in the claims of the therapeutic art, which even its opponents are not seldom the readiest to have recourse to, when disease attacks or death threatens.

Wholesale and unmodified objectors to medicine seem influenced by the radical error of forgetting the artificial state of man. "As he immerses from his primeval simplicity," says an eloquent writer (Dr. Lambe), "do the furies of disease rush upon him, and would scourge him back into the paths of nature and simplicity." But into these confines he will not, he *cannot* again enter. The die is cast, and the choice is only left him of applying the counteractives of art, to the derangements produced by art. And oh! what a glorious sight is opened up before us in reference to this particular. What would London be, with its thousands of streets, and almost millions of inhabitants, were it not for medical science, medical polity, and vastly improved medical practice?

Pestilence is stripped and crippled to such an extent that it retains not a tithe of its former malignity and power. It sits like Buuyan's Pope and Pagan, grinning impotence. The ravages of small-pox and all its dire sequelæ, thanks to Sydenham and to Jenner, are now comparatively matters of history, rather than of present fact.

Rickets and other deformities; notwithstanding our effeminate habits, are rapidly departing from our land. In order to witness the horrors of ague and all its dreadful accompaniments, we must now transplant ourselves to the shores of the Mississippi. Fevers are washed, or diluted, or drank away, under the demands of nature, or are dispersed in air—thin air—instead of being, as they were wont to be, blanketed, and fostered, and fed, by nosological nonsense, or theories which it is painful, because it is humiliating, to think of. Nurseries! why, they are absolutely new localities; and nurses, thank science and good sense for it, are almost a gone-by race. Common-place notions, and sapient apothegms, with their dire and cruel tyranny are going down to "the vault of all the Capulets." Real knowledge has begun to assert its claim and put forth its powers, and the practical consequence is, and evermore will be, freedom, and health, and happiness.

Only contemplate the ruddy cheeks and happy countenances of those children you daily see in your walks about the wide and open streets in the outlets of the metropolis, and look at the health and cleanliness and hilarity of their attendant nurses; (I speak now, of course, merely as a physiologist, and philosopher and political economist); look, I say, at the blooming countenances of the children and their young nurses, and you will

be compelled to the confession, whatever your sentiments may be respecting the Cockney school of poetry and of literature, that the Cockney school of beauty and health is at the very least its equal.

This is no *Deus intersit* flourish : I speak forth the words of truth and soberness. Here is art countervailing art, with ample and unanswerable witness ; and had we of the faculty no other triumphs to display than those just adduced, medicine would even then possess sufficient to boast of on the score of the past, and plenty of promise in reference to what is to come. But the absolute and immediate success of practical medicine is in other ways constantly demonstrated. If I give opium to relieve pain, and the desired effect follows the administration of the drug, I not only thus effect a temporary good, but in many cases operate a lasting or radical benefit ; for the pain which I have thus subdued at its onset, would in numerous cases have otherwise set up an irritation in the frame, which irritation might have proved a source of permanent, and at length have proceeded to organic mischief.

It is curious enough that some individuals who question the powers of medicine, speak with approbation of surgery ; but surely I have been as rationally and as usefully engaged in curbing the rage of any form of disease, which even in its etymology implies pain, as he has been who shall have reduced a dislocated joint, or relieved a strangulated hernia ; and I have been, if it may be allowed me to say so, more philosophically employed, inasmuch as anatomical knowledge and mechanical tact are sufficient for the surgeon's purpose, while to detect disease through all its tortuous workings through the fibres and fabric of the body, demands much more than handiwork dexterity or structural knowledge.

Whether the two departments of the art may be exercised with the best effect by one and the same individual is another question ; and it is one which would be out of place to discuss here with any thing like the amplitude which its importance demands. I may only just remark, that to some extent the physician and the surgeon will ever be the same, on account of their provinces being so intermixed, as to defy such separation as is practicable in other sciences and arts ; yet still it must be admitted that surgery in its higher departments demands so minute and so continued a recognition and recollection of every ramification of every vessel and every fibre almost of the animated machine, and at the same time calls for that manual dexterity which may exist to the exclusion of more reflective habits, and greater capacity for philosophical deduction, that it seems in the nature of things the amalgamation proposed by some, can never go beyond close alliance—that a good physician will be a good physician still, and an able surgeon, an

able surgeon still, to the end of the chapter. One thing, however, is certain amidst all the discordance of sentiment ; and it is to you, gentlemen, as important as it is certain, that the studies of the surgeon and those of the physician, during the days of pupillage at least, are not separable ; *all* the departments of the healing or restorative art claim the student's attention ; and having acquired his preliminary knowledge he will go out into the world, armed at all points, and ready to practise any branch to which inclination may urge, or accident direct. I will employ the very short hour before us, by first presenting you with an exceedingly slight outline of the progress of medical doctrine ; by, secondly, offering you my opinion on the attempts that have been made to arrange and designate disordered states ; and finally, in giving you a sketch of the plan I mean to pursue in the present course.

Medicine was in the earliest days surgery, and surgery was medicine. We do not hear much in ancient times beyond extracting darts and applying medicaments to wounded surfaces ; and even when internal maladies became the subjects of recognition, poets, priests, and philosophers were the charmers away of pain, and the restorers of healthy action ; nor can this be wondered at when we take into account the amazing power which imagination possesses in actually changing physical conditions. Even in our days of controlling, calculation, and scientific certainty, the lame have been made to walk at the mandate of persons supposed to possess potency equal to the required effect ; and who is there ignorant of the fact that precisely the same medicine will operate with diversified influence, according to the strength or weakness of the patient's faith in the prescriber's competence ?

On this topic I shall have again to observe, and to amplify in that part of the course which will be devoted to what are usually called nervous diseases ; and I now hasten to my proposed history—or rather historical sketch of the progress of our art from the period when it came to be cultivated and practised distinctively and exclusively.

Hippocrates was the first fully to accomplish this separation. He has therefore been styled the father and founder of physic. This great man was born in the Greek island Cos, and he lived about four hundred years prior, as did Galen about one hundred years after the birth of Christ. His fame was principally founded upon his habit of minutely investigating the circumstances and exciting sources of disease ; but his deductions as to internal localities were not seldom exceedingly vague, in consequence of the little that was known of the structure and functions of the parts. The success of his practice, however, was proof of what a great deal may be effected by a minute observation of symptoms directed by judgment, even though the

pathological source of such symptoms be not understood.

Very soon after the time of Hippocrates, anatomy came to be more extensively cultivated, but some of the earliest investigators of structure were too frequently obliged to limit their investigations to the brute creation.

Now it was, as related by Celsus, that divisions were instituted in medicine, and at this time two sects sprang up, under the denomination of Empirics and Dogmatists; one disclaiming all appeals excepting to experience—the other contending that facts were useless without philosophy: thus, as is still too much the case, engaging in disputations which resolved themselves into mere logomachies—the talkers about experience not seeming to be aware that “to think is to theorize,” and that the *merest observation implies a process of thought*; while the Dogmatists called that philosophizing, which amounted to little more than dressing up thought in a cumbrous and unmeaning phraseology. The celebrated John Hunter reasoned as did the Dogmatists of old, when he talked about “the life of the blood,” and of this fluid coagulating from “the stimulus of necessity,” which is no more than saying, “the blood coagulates because it must coagulate.”

The atoms of Epicurus were also at this time made subsidiary to medical theory; and molecules, and pores, and masses, and movements, were introduced into its doctrines. Then the methodic creed put forth its pretensions—the disciples of which proposed to exempt themselves both from the occult reasoning of the Dogmatists, and the mere observation of the Empirics. It was in this school that indications of treatment founded on the analogy of maladies were broached.

When Galen first taught medicine, he proposed the restoration of Hippocratic simplicity; but with this simplicity he conspicuously interlarded his own theories; he had, however, the advantage of writing when anatomy and its attendant physiology were in a somewhat advanced state; and an attentive reader of his works will find scattered through them many indications of some physiological doctrines, which in a measure deprive some modern suggestions of their claim to novelty; and there is a good deal of phraseology still in vogue which originated in Galenic Philosophy. (*Nerves of Sensation and Motion.*)

Galen's authority continued paramount until the downfall of the Roman Empire. The overthrow of this gigantic power buried European philosophy under its ruins, and monks and mysticism came now to be the order of the day.

But science, like commerce, is so restless and enterprising, that, dam it up in one part, you will soon see it break out in another. Learning, expelled by superstition from Europe, soon found its way into more Eastern nations;

and Arabia strove to imitate the fame of Rome and Greece. To the Arabians we are indebted for many valuable additions to the *Materia Medica*, but the advantage which was gained to medicine, as a whole, from these cultivators of the science, was perhaps the introduction of clearer notions than had hitherto been maintained, on the difference between epidemic and contagious distempers; on which subject, much however of obscurity to this day prevails, partly, as I shall have occasion hereafter to shew, on account of the very little that is known of atmospheric changes, as regulating and modifying disordered action.

As to the theory and practice of medicine, the Arabians did little more than copy, and badly translate the Greek and Latin authors.

The mention of a singular controversy that occurred during the prevalence of Eastern science, may serve to indicate the complexion of these times. Hippocrates had directed that blood should be drawn in pleurisy, from the arm nearest the part affected. Some of the Arabian physicians contended that it ought to be extracted from the opposite side; and this controverted point was discussed with so much ardour, that an edict was issued from the University of Salamanca, forbidding every one to pursue the Hippocratic injunction. The members of the University even endeavoured to obtain an edict from Charles V. to confirm their authority, alleging that the practice they opposed was no less pernicious to medicine, than Luther's heresy had been to religion!

To the Crusaders and the Saracenic invaders of Spain, are we indebted for the re-introduction of learning into Europe; but from the decay of learning to the commencement of the 16th century, nothing occurred in the way of improvement, sufficiently important here to be mentioned.

At the close of the 15th century Paracelsus was born. He was a native of Switzerland, and soon became conspicuous as a bold innovator, ridiculing all that had gone before him, and making of medicine a sort of alchemic art. His converts were many, but the most learned and respectable physicians of the time continued to abide by the doctrines of Galen.

It was in the year 1628, that Dr. William Harvey, a native of Britain, first announced the important discovery of the blood's circulation; a discovery which furnished a new framework for the whole compass of medical institutes. The announcement, however, was not at first well received. Most of Dr. H.'s contemporaries refused to subscribe to the truth of the doctrine, while others were busily engaged in proving that the discovery itself had been anticipated*.

* It is delightful for the patriotic Briton to reflect, that this has ever been the land of “master minds.” Who does not know, and exult in the consciousness, that our Newton

To Servetus, among others, was the credit awarded of having actually made the discovery, while Harvey, it was maintained, merely methodised and amplified the facts, so as to give them the appearance of novelty.

But the fact itself soon came to be misused and misapplied. As the disciples of Paracelsus had derided the ancients and resolved every thing into a kind of chemistry, so the chemical now in its turn gave way to the mathematical mania, which by axioms, postulates and corollaries, attempted to explain the functions of life, and the features of disease.

Afterwards a species of metaphysics usurped the chair of medical learning. Dr. Stahl, first suggested the idea of a rational soul, to whose directions and decisions the medical practitioners should listen and bow. Hence the *Viris Medicatricibus Naturæ*, which still, in their ghostly forms hover over the speculations of medical writers. Indeed this is but a round-about way of expressing a familiar fact, viz. that there is in nature a tendency to resist and regulate the inroads of malady.

Boerhaave attempted to recal the faculty to ancient authorities, and by combining in a measure Hippocratic Principles with the chemistry of the day, he proposed a system of his own, which principally turned upon the notion of mechanical and chemical changes in the circulating fluids, and this (vague as it was), introduced what has been named the humoral pathology; a pathology which Dr. Cullen tells us he found prevalent, when he was appointed principal professor in the Edinburgh University.

Dr. Cullen however, himself, reverted rather to Hoffman's views, which by a sort of antithesis to the humoral doctrines, particularly looked to the vital solid as the *primum mobile* of morbid being. Hence he (Dr. Cullen) borrowed his notions of spasm, a state to which I shall afterwards have occasion to refer; and with this spasm he got the Stahlian doctrine of *Vis Naturæ* interwoven, so as to constitute a system, partly from Gaubius and Hoffman, and partly from Stahl. Now then, action and reaction, spasm, and resolution of spasm, by the agency of the *Vires Naturæ*, subverted the previous notions of humours and obstructions, which were handed over to the *profanum vulgus* of the time.

gave laws to the material—our Bacon to the mental world? What Englishman can fail to contemplate without delight, that his is the country of Shakspeare and Milton? Harvey, we have just heard, gave to all vital essence a base to stand on. Black was the first to unlock the prison-house which held aerial substance in bondage, and it was his grand conception which let out latent heat from its numerous indwellings, and gave ample range and scope for the rich employment, and magnificent application of all its mighty energies.

Brown, indeed, ridiculed the spasm of Hoffman and Cullen, and proposed in its stead, the vague and inapplicable doctrine of excitability—vague, inasmuch as the change effected under the name of excitement, has never been satisfactorily defined; and inapplicable, because Brown's principles of excitability are contradictory, and one remedy in different doses ought, in his system, to supersede the employment of all others.

It is evident that Brown himself was conscious of having discovered the polar star by which future practitioners were to steer their course through all the intricacies of practice. He informs us, in the masterly preface to his *Elementa Medicinæ*, that during the twenty years he had given his mind to medical matters, he was, for the first five, occupied with receiving what he imagined instruction from others. The second lustrum found him principally engaged in teaching this false or imaginary knowledge to others; he thirdly began to entertain doubts whether he were not in a wrong course, for all, upon investigation, appeared *sine dulcissima rerum, luce veri*. And it was not until the last five years, that truth began to dawn upon his mind. “Solo quarto lustro, veluti viatori, ignota regione, perditis viæ vestigiis, in umbra noctis erranti, perobscura quædam, quasi prima diurna lux demum adfulsit.”

Darwin, in his *Zoonomia*, a work which at one time was too highly appreciated, and now is too sweepingly disregarded, mixed Brown's excitement with simple and compound laws regulating the fibrous and sentient system, and thus constituted a theoretical edifice, so as to include the several varieties of morbid being, as disorders of irritation—sensation—volition—and association.

So far as I have given my attention to the Hahnemann system of medicine, it appears to me founded on the reverse doctrine of what has hitherto obtained. Instead of *contraria in contrariis* it is *similia in similibus*, which, according to our German systematic, ought to direct the practice of the therapeutist. But, what analogy can be found between paralysis and minute doses of vegetable and mineral poisons, I have yet to learn. I should, indeed, place the whole affair on the same shelf with astrology, animal magnetism, and other mystic stuff to which our ingenious neighbours the Germans are so partial—did I not know that the principal apostle of the new faith in this country (Dr. Quin), is both a scientific and an honourable man—and did I not recollect that phrenological dicta appear to me in a much more favourable light than they did when I first heard them announced.

Such, generally, is an outline of medical systems, which it will be seen are more or less strongly marked by three radical errors. In the first place, it is assumed that vital and deranged action are traceable to one governing or master principle. Secondly, the several framers of successive hypotheses, con-

found efficient with final causation; and in the third place, natural philosophy, or the science of inorganic existence, is forced into an *unnatural* union with medical or rather with vital philosophy. So that during the whole time that theorizers have been reasoning, their exertions have proved no otherwise availing than the incidental discovery, and in some measure false registry of isolated facts; but even this last has been of service: for while the registry has often been defective and fallacious, it has sometimes proved correct and efficient; for example, even from the wildest and most unwarrantable of Brown's assumptions, legitimate inferences and practical principles have been beneficially adduced. (Sthenia and Asthenia).

"To think," it has been well remarked, "is to theorize." And those who oppose empiricism to theory, are, as before intimated, warring about words. We are obliged either by a process of our own mind, or by following the dictates of others, to register observations according to their inferred analogy; so that it is rather a question of hypothesis and theory, or of true and false generalization, than a question between facts and theories, which ought, nay *must* regulate all our sentiments and opinions on matters that are not susceptible of mathematic proof. An individual who talks about an ounce of fact being worth a pound of theory, talks absurdly—because practice, to be of any value at all, necessarily stretches itself out beyond the isolation of single circumstance. If I relieve pain, and afterwards wish to accomplish the same purpose, I am not aware without inquiry—that is, without referring to my mental register, or my written record—whether pain in the second demands or will admit the same treatment as pain in the first instance; so much for the opposition that has been set up of fact against inference.

Even during the present day, assumption of an eclectic spirit, in contradistinction to the hypotheses and futilities of by-gone times—that tendency to illegitimate generalization to which I have above referred—is sufficiently conspicuous among medical writings.

In some respects, indeed, we find false *registry* to be more especially mischievous among our contemporaries than it was with our predecessors; the head, the liver, the heart, the blood-vessels, the stomach, the nerves, and the membranes, have been looked up to, by successive theorists, as the main-spring of disordered action; even when such disorder owes no locality, but is at it were diffused through all organic space; and practitioners have been led wide of their mark by these topical assumptions; while pathologists have been employed in phraseology, which is any thing but correct.

I state this without desiring to undervalue the decided improvements which have recently done honour to the age, and credit to our

science. My only wish is to check the tendency there is, at all times, and in all things, to satisfy ourselves that we have got to the furthest point, when we have only made some little way in the correct path of procedure; to repress a disposition still lingering among us to *verba magistri* authority; and to lead your minds into the habitual consciousness that medicine is not a science which will always bear the adaptation of demonstrable—leading principles; that analogies even, often fail us; that every successive case is as it were a new study; and that while we assiduously apply ourselves to the cultivation of those branches of science which embrace medicine in their therapeutic application, and which themselves admit of their several and separate degrees of demonstrable or physical evidence—that while we learn anatomy, and physiology, and chemistry, and botany, and even surgery and pathology, upon principle—we must be contented in actual and practical medicine with scientific observation; and he, after all, will be the most successful physician who, in the language of phrenology; shall be possessed of, and exercise the largest share of the perceptive faculties, joined with a capacious causality, in order to lead him to correct inferences from materials which lie before his mental grasp, often in the most puzzling and almost contradictory seeming. He must take up the whole of the broken machinery, and put the parts together with promptitude and skill; promptitude, because delay is often highly dangerous; and skill, because he must not be looking into the liver, or scanning membranous lesion, or talking vaguely about digestive organs merely, while the whole bearings of the deranged condition at once summon his comprehensive regard.

But I must pass on briefly to notice nomenclature and nosological classification—subjects which have occupied much the thoughts, and employed largely the pens of medical speculators.

Now, it will at once occur to you, that the very attempt to identify a *disease* by certain parts and properties, as the botanist names a plant by its generic and specific characters, must be, in some measure, a vain attempt. "More than half the cases," says Wilson Philip, "we meet with, are *combinations* of diseases, rather than simple diseases." He ought to have said ALL are such; for of so complicated a nature is the human frame, that it is impossible disorder should have existence in one portion of it, without extending itself to others. For example, pulmonary affections are named and classified from symptoms. We talk of consumption, of bronchitis, of asthma, of pleurisy, of hydrothorax, of hydrops pulmonum, and so forth, but none of the affections, which are the leaders or characterizers of these several maladies, ever exist alone; nor are any one of them, or all of them together, the same in shewing upon different individuals.

When, therefore, a systematic names a disease, the enunciation must be considered as in some measure presumptive and uncertain, unless, indeed, by a sort of *metonymical* management, we substitute the *cause* of the disease for the disease itself—as when we say of an individual that he has a *cold*; but, even in this case, how great is the confusion and indecision that are induced! If a person talk of having a cold in his head, in his chest, in his limbs, he employs any thing but precise language; for it is the property of cold, or more properly speaking, of change in temperature, to produce what we should call spasm at one time, and in one locality, and in one individual; while in other times, and places, and persons, it occasions various kinds and measures of inflammation, congestion, hæmorrhage, fevers, &c.

But besides this source of error, another objection of a formidable nature applies itself against this metonymy—or in other words, this principle of denominating a malady from its supposed source, since a great diversity of sentiment still exists as to the nature and operation of several of the causes themselves. In the minds, for example, of many, the word typhus gives rise to the idea of a specific or peculiar poison acting as a contagion; while many others conceive that cold, famine, filth, and other deranging powers, are occasionally equal to its production.

In imagining, then, distinctive marks of diseased states, as referrible to particular or peculiar sources, we shall find ourselves embarrassed by every successive step, seeing that an identical cause may engender a diversity of effect, or a variety of symptoms, and finding, moreover, that the causes themselves are sometimes enveloped in such obscurity as to be variously discerned by various speculatists.

Then, from name to classification. How conspicuously do we find in this last the principle of analogy to fail us! Hæmorrhage, in Cullen's Nosology, is arranged in the same division with intermittent fever. And wherefore? Is it because the two morbid circumstances possess any character in common, as do the number and form of petals in plants of the same species? No—it is simply because they implicate the blood-vessels, while other maladies are nervous, and others depend more especially upon faulty excretions.

“Why not, it may be said, take any one part or organ, and, recognizing its deranged conditions, class them as appertaining to the organ affected, thus forming a topographical nosology?” The very complication above hinted at, would prevent accuracy, did we attempt it in this mode; and further than this, the locality of morbid states, did we always ascertain it, is very often but the second or third link in the chain, while the original and primary sources are to be found in the sentient system. Thus we may call hydrocephalus and epilepsy disorders of

the brain, but then we separate them from other maladies, as dropsy in the one case, and hysteria in the other; the one a lymphatic, the other a nervous derangement, with which they have more, so to say, fundamental or primary alliance than with any morbid states of the brain itself.

In a word, the animal system, especially the human frame, is so thoroughly a wheel within a wheel—so absolutely dependent upon its well or ill doing by the excitations without, and circumstances within, so diversified in its original texture, and so susceptible of modification from its exposure to a multitude of irritating causes, that when deviation from healthy standards occur, they do so with such marked irregularity, as not only to defy accuracy in classification, but to prove that the very principle itself, of nosological division and detail, is fallacious and ideal; and yet we must have some guide in our course of observation, especially when we attempt the task of teaching medicine to others.

On this account I shall select that chart by which we are to steer our course through our future meetings, which, although necessarily and in the very nature of things fallacious, yet, which in my mind, to say the very least, is as little objectionable as any that has come under my inspection; this scheme has, too, the advantage of falling in, more than all others, with the order that is generally observed both in medical tuition and medical examination: I mean the system of Cullen, which recognizes the three leading principles of animate being; namely, the *circulatory* or moving power; the *sentient* or percipient power; and the *absorbent* or repairing power: circulation more or less complicated, assimilation more or less separate, and sensation more or less distinct, being those distinguishing faculties which divide organized from lifeless matter.

Cullen adopts the term *Pyrexia* when treating of those deviations from health which engage especially the blood-vessels. Under the term *Neuroses* he ranges maladies of perception, sensation, and intellect; and by *Cachexia*, his third leading division, he indicates those disorders which have particular connexion with the secretory and absorbent system. As, however, from the causes just hinted at, we find ourselves assailed at every point when we come to individualize or locate maladies by this or any other scale, it would appear to me to be more instructive first to go over in a general way these natural divisions, and the affections peculiar to the above-mentioned functions, and then, bearing in recollection these land-marks, as it were, set to work more topographically; beginning by affections of the head, and proceeding downwards through the viscera.

But, as we find some disordered states which refuse to be located even with these qualifications, we must, in reference to these, proceed upon another principle, and endeavor

vour to designate the derangement by the peculiar something which seems to have engendered it. In this division we shall have to include contagions and fevers, and other anomalous or cryptogamic complaints : these we must treat of as their sources appear more or less evident ; and the consideration of these sources will lead us into the question of contagion and infection, about which much of discordant sentiment still prevails. Many of the eruptive fevers which differ from other skin maladies, will here fall before us for consideration ; but on these disputed points, while I endeavour to be clear and intelligible, I shall at the same time study to be as brief as shall consist with clearness.

In the above remarks, the order of the course to be pursued has been pointed out. I have only to add that a brief anatomy and physiology of each part will be attempted, prior to treating of its disordered conditions ; this, however, will only so far be pursued, as to render more familiar the local pathology of the organs, and thus make it more impressive : minute anatomy, and systematic pathology, you will, of course, be taught in other places ; but all the items which go together to form the sum total of medical science, are likewise so blended that their complete separation by respective teachers is neither practicable nor desirable.

At our next meeting we shall be engaged in some preliminary remarks on disordered action and therapeutic agency ; and having concluded these, we then proceed to consider the laws and circumstances of the blood's circulation, with its prominent and leading derangements. From the circulation we pass on to the assimilating function, and then conclude this portion of the course by taking a survey of the nervous system, both in its healthy and deranged habitudes.

At this part of the course, Gentlemen, I propose to make a pause, and occupy one or more meetings by inquiries as to the quantum and kind of knowledge I may find among the pupils in reference to general function and disordered being. And this plan I purpose to adopt through the detail of disease ; thus having extended our investigation over the whole of pulmonary affections, I will, with your permission, put questions relative to the anatomy, functions, and pathological circumstances of the heart, the lungs, and all the membranous structure that is found in the thoracic cavity ; the same course will then be pursued in reference to the viscera and membranes, and vessels of the abdominal cavity : we afterwards go on to the extra-abdominal viscera and their connexions, and ascertain how the pupil stands as it respects his knowledge of kidney, and vesical, and uterine, and other connected ailments. And among the cryptogamia and anomalous derangements, fevers, contagions, rheumatic affections, and some others, will be inquired into, according to the order that

shall have been pursued in the course of the readings and remarks.

Thus will the teacher and the taught be rather disposed to a reflective than a routine manner of conducting inquiry, and engaging in disquisition ; and thus will the pupil be made more ready to meet those investigations which will be elsewhere entered into, respecting the degree of his attention as measured by the amount of his acquirements.

—o—

LECTURES ON THE PHYSICAL EDUCATION AND DIS- EASES OF INFANTS, FROM BIRTH TO PUBERTY.

BY DR. RYAN.

Delivered at the Medical School, Westminster

Dispensary, Gerrard Street, Soho :

Session 1834-35.

LECTURE I.

—

Vices of Conformation and Diseases of the Urinary Apparatus.

Diseases of the Urinary Apparatus.—This apparatus comprises the kidneys, subrenal capsules, ureters, bladder, urachus, and urethra. Every one of these parts has been found diseased during intra-uterine life. A few examples may be quoted.

The urinary and genital apparatus, developed at an early period in the foetus, necessarily offer a numerous series of anomalies : on this account a multitude of imperfections have been observed in the different parts which compose them ; such as the augmentation and diminution of the natural size of the kidneys, their division into several lobes, their re-union, adherence, augmentation of the calibre of the ureters, their absence, the communication of the bladder with the navel at the middle of the urachus. Fleischmann relates a case in which there were no traces of the urinary apparatus, although the intestinal canal and other abdominal organs were in their natural state, &c. All these anomalies, as well as the different malformations of the genital organs which constitute the numerous species of hermaphroditism, relating directly to the divers monstrosities, either by excess or defect, are entirely foreign to the subject we are at present treating.

The ureter has been obliterated, and the kidney distended, by incysted dropsy in an infant of four days old (Billard). The kidneys may be absent, or there may be only one, and this situated on the vertebrae (Meckel). The lobes may be separated, and sometimes the situation of the kidneys is changed : they have been found higher or lower than usual, and adherent to surrounding organs. Sometimes the walls of the

bladder are found much thicker than in their natural state; at other times the internal surface of it is red, and contains pus or purulent mucosity, and is consequently affected with true inflammation. M. Moreau related a case before the Académie de Médecine in 1828. A woman, pregnant for the fourth time, was confined, three weeks before the end of utero-gestation, of a small delicate girl, but whose abdomen was very large, being distended by a liquid. At the rupture of the membranes, and more especially after the expulsion of the infant, there was a great quantity of water discharged; M. Moreau estimated it at eight pints. The infant died thirty hours after birth, and, on opening the body, he found almost two pints of yellow-reddish serosity in the peritoneum, the intestine contracted, being not more than the size of a common lumbricus, and without the least signs of meconium; the bladder was distended so as to reach as far up as the navel, its walls being thick, hard, studded with red points and fleshy columns, as well-marked as in some bladders of the adult; the ureters distended to the size of the finger; in fine, the kidneys were very voluminous, and resembling two large tumours.

The renal capsules, which are very much developed in the fœtus, and whose functions are at present entirely unknown, have as yet presented no defect of formation consisting in an anormal or incomplete development, or in varieties in number, form, situation, &c.; as to their morbid alterations, we possess but one case, observed by M. Andral, who, in making an autopsic examination on a phthisical female, who died at the sixth month of utero-gestation, found one of the renal capsules inflamed, and in a state of suppuration.

Distention and displacement of the bladder are sometimes observed in the fœtus (Chaussier, Duncan, and others). The anterior wall of the bladder has been absent; there was at the same time a division of the abdominal wall and a separation of the pubes, so that the internal surface of the posterior wall presented external to the abdomen. Dr. Duncan considered this deformity more common to male infants (Edinburgh Med. and Surg. Journ.); but it has also existed in female. Meckel found bifurcation of the bladder and the formation of several sacs (S. A. Ehrlich, *Chirurgische Beobachtungen*, t. 2).

The bladder of the fœtus may not only be affected with inflammation, but, as in the adult, it may also contain calculi of a greater or less size. F. Hoffmann has observed a remarkable example (*Opera Omnia*, t. vi). The lady of a German prince had experienced, during pregnancy, severe pains, occasioned by the pressure of a calculus situated in the kidneys. She was, nevertheless, happily delivered of a daughter, which, a short time after its birth, appeared to ex-

perience violent pain during the evacuation of urine, and which died towards the third week: on examination, a calculus of the size of a peach-stone was found in the bladder. M. Denis has also met with, in an infant that died a few days after birth, from intestinal affection, numerous calculi of a moderate size in the bladder. It will not be said that these calculi were formed during the short interval between the birth of the infant and its death; and it should be remembered that the development of these bodies indicated an epoch anterior to that of birth; what appears more extraordinary is, that, in the fœtus, the bladder always contains a greater or less quantity of urine. The urethra may be obliterated, or considerably contracted, in any part of its course. Its orifice has been impervious, and in such cases it opens anterior or posterior to the scrotum (hypospadias), or on the dorsum penis (epispadias), or on the side of the organ (pleurospadias). When the urethra is impervious at the orifice, the bladder will become distended, and an incision necessary. When there is an opening on the inferior, superior, or lateral surface of the penis, there is no necessity for operation, as the urine may be as freely evacuated as in the normal state of the urethra.

Hydrocele.—Another disease with which the fœtus is often affected, is hydrocele. This always takes place from the non-obliteration of the inguinal ring, after the passage of the testicles. The serosity, which forms the tumour, secreted itself by the peritoneum, which it lubricates, passes from the abdominal cavity through the ring which is left open, and of which it prevents the obliteration, and forms in the scrotum an oblong tumour, more or less bulky and transparent, which increases in volume when the infant is in the vertical position, which diminishes, on the contrary, and even entirely disappears when it lies or when it is pressed, which causes the great distinction between this species of hydrocele and that met with in adults. These tumours, on account of the enormous volume they acquire in certain circumstances, may oppose the completion of parturition. An example of this is to be found in one of the Edinburgh Essays: the tumour was so large that the fœtus could not traverse the pelvis, and labour could not be effected till the volume of the tumour had been diminished by the discharge of a portion of the fluid it contained. A possibility of a return of this secretion into the abdomen should be guarded against by the application of a proper bandage in closing the aperture which gave passage to the liquid: a method of treatment always successful when hydrocele is not complicated with other diseases.

The kidneys have been inflamed during intra-uterine life; but it is difficult to detect the disease in new-born infants, on account of the great vascularity of the organs under

consideration. Dissection has shown ecchymoses of the kidneys of the fœtus in utero. They have also been marked with yellow lines, when the fœtus was jaundiced.

In some intra-uterine infants the kidneys have been so softened, that they yielded to the pressure of the finger, and were lacerated with facility.

It also appears that calculous nephritis, or gravel in the kidneys has occurred during the same period of life. M. Denis has detected gravel in the kidneys, ureters, and bladder, in new-born infants. M. Billard attests the same pathology, but never saw well marked calculi, though he does not consider their formation impossible.

The internal surface of the bladder is generally of a white satin colour, but it is sometimes dotted with petechiæ, and highly vascular. In infants after birth, the kidneys and bladder are sometimes inflamed, though the disease is of very rare occurrence at this period of life. Underwood states that the symptoms of nephritis are extremely obscure, and may evade detection during life, and arise from ischuria renalis. Retention or suppression of urine has been observed in young infants; and after death the bladder was found empty. In such cases there was no secretion of urine, that is to say, the kidneys did not perform their function. The morbid appearances alone established the cause of death.

The bladder is occasionally inflamed in very young infants, as at the age of fifteen days, two months, and four months, the internal membrane was excessively red and tumefied. There was suppression of urine and distention of the bladder in one of these cases, and intense inflammation was found at the neck of the organ.

In some cases cystitis is caused by improper diet, intestinal inflammation, dentition, and sometimes by acute and chronic disease of the brain, or spinal marrow, or of both. In such cerebro-spinal affections, there is also paralysis of the bladder.

New-born infants suffer from *retention of urine* for a day, when the urethra is imperious; and this generally attracts attention. It also happens that an infant may not pass urine for a day or two, independently of cystitis or impervious urethra. In such cases the warm bath, warm fomentations, or the application of a bladder half filled with warm water, are the best remedies. A few drops of nitrous ether may be given in barley water or milk. These means usually afford relief when there is no malformation or inflammation of the urinary organs. If they fail, catheterism ought to be employed if the bladder is distended. When there is reason to suspect cystitis, which is a very rare disease, a leech or two may be applied to the hypogastrium or perineum, the bleeding encouraged by warm fomentations, and afterwards a warm bath will be highly useful.

According to Morton and other writers,

infants have been affected with diabetes mellitus, and cured by a milk diet, with a weak chalybeate water.

Catarrh of the bladder rarely occurs in infants at the breast, but is more frequent to those of a more advanced age. It may be caused by worms, tenesmus, dentition, or stone in the bladder. It requires the same treatment as cystitis. In slight cases the urine becomes white on cooling, and somewhat resembles milk. This condition is usually attributed to worms, but really depends on irritation or slight inflammation of the bladder. It is generally relieved by mucilaginous drinks, with proper doses of the sedative preparations of opium. The diet ought to consist of the vegetable jellies, such as arrow-root, sago, tapioca, &c.; and if the infant's strength is much reduced, of animal jellies, chicken-broth, beef-tea, &c.

Gravel and urinary calculi are also diseases of infants. If the infant is at the breast, the nurse ought to be advised to take vegetable, and avoid animal food. When the calculus is composed of lithic acid, which may be suspected when the sand passed in the urine is of a red colour, the best remedies are lime water, soda water, soda in table beer or barley water, calcined magnesia, or a combination of these in appropriate doses, according to the age of the patient.

When the sand is white, we may suspect the phosphates, and exhibit dilute nitric or muriatic acid, or muriated tincture of iron. I have repeatedly observed the good effects of the last remedy combined with opium in my hospital practice, in infants from one to five years of age. In these cases, however, as in those of adults, all medicinal remedies often fail, and lithotomy is the only resource. It is worthy of mention, that infants are liable to calculus in the kidney and ureter, as well as in the bladder, and also in the urethra. Examples of the last are by no means rare in dispensary practice.

The existence of calculus may be suspected when the infant cries or suffers from tenesmus on attempting to pass urine, when the fluid escapes drop by drop, appears reddish, or tinged with blood, or deposits a glary or puriform sediment. The infant also conveys its hand to the genital organs. The pain has been so great, that convulsions supervened, and death followed. The disease continues to the age of two or three years, defies all remedies except lithotomy, and which has often been performed with complete success. When calcareous matter impacts the urethra, it may often be removed with a probe; and if it cannot be dislodged, the urethra should be opened behind it when practicable.

Incontinence of Urine in Infants.—This disease is very common to infants, and often continues until puberty, and it is said that girls are more liable to it than boys. The causes of this disease are insensibility, re-

laxation, or paralysis of the bladder. There are different degrees of insensibility; some infants do not suffer from incontinence but during sleep, and others when awake; and when the bladder is too relaxed to retain the urine, the patient is languid, fretful, or irritable; the digestion is variable or bad, the countenance is pale, there is a black or bluish circle round the eyes, and general emaciation follows.

According as age advances, the disease disappears without any medicine, and especially at puberty; but in other instances, the disease ceases from the fifth to the tenth year, and returns at the twelfth or fourteenth, which is the period of puberty, on account of the excess of irritability of the genital organs at this epoch of life. Sound sleep is a cause of this disease, as the patient may not perceive the impression of the urine on the bladder. It is on this account that children who are fatigued from exercise, and sleep profoundly, often wet the bed.

The means for curing incontinence of urine must vary according to the causes which produce it. Thus, if it depends on general atony of the system, tonics and chalybeates are indicated, with cold bathing, or affusion of cold water on the genital organs. I have found a few drops of laudanum or the sedative solution given at bedtime, an effectual remedy in infants, and children arrived at puberty. Several cases of girls at the age of puberty, affected with this inconvenient disease, were successfully treated by me, with opium, at St. John's Hospital, the Free Hospital, and Western Dispensary. The effect of this remedy on the brain causes an unusual state of innervation during sleep, and breaks through the anormal state of the cerebro-spinal system, which causes the disease. It is scarcely necessary to observe, that due attention should be paid to the general health. Children should be prevented from, or cautioned against, irritating the genitals with the hand.

—o—

Reviews.

First Report of the Commissioners under the Poor Law Act, addressed to the Right Honourable Lord John Russell, His Majesty's Principal Secretary of State for the Home Department.

IN obedience to the Poor Law Act, the Commissioners under it are required to make an annual Report to the Secretary of State for the Home Department. Their first Report is now before us, and shews the degree of improvement in the condition of the poor, the diminution of bastardy, and the abuses of the medical profession.

It appears by several returns from different parts of the country, that the diminution of bastard children is from ten to one; and in a certain district in the county of Flint, that "of the number of women who applied to be married, fourteen in fifteen were pregnant; but in the eighteen marriages which we have had since last August, all the ladies except one retained their virgin shape, and appeared without their mantle."

The Commissioners admit many imperfections in the act, and among these the want of proper judicial functionaries, who ought to be accessible to the poorest of the community, to decide upon the injury of seduction, without compelling the poor to resort to the superior courts of law, which are too costly.

We now come to the medical department, on which we find the following remarks.

"Amongst the evils we found ourselves called upon to remedy, were a large class connected with the administration of medical relief. In our present Report we deem it necessary only to advert to some of the chief evils of this class, and to the measures we have adopted with relation to them.

"We found it a practice, in the great majority of instances, for a medical man to contract with the parish for the supply to the settled paupers of the parish with medical attendance for a small fixed sum, on the expressed or implied condition that he should be allowed to make whatever charges he pleased for his attendance and treatment of non-parishioners, under suspended orders of removal, or an order of medical relief by the overseer. When the patient has recovered, he is sent home to a parish with a bill for medical attendance including charges for medicines at the highest rates. Against these charges the distant parish to which the pauper belonged had no adequate protection. The pauper was exposed to the danger of being supplied with medicines considerably beyond what was required for his proper treatment. Instances have come to our knowledge where, in large populous parishes, the profits of attendance upon paupers under such circumstances, has been upwards of 300*l.* per annum. The inferior officers have been fed by the medical officers to search out and give him information of the cases of this description. As a further evil of this system, we may mention that paupers with their families have been removed from their parishes at a great expense, when each head of a family would otherwise have preferred remaining and seeking employment in the parish where his sickness occurred. By countenancing these

practices parishes were in the habit of creating burdens for each other. As a check to this system, and to the general expense of medical relief, we have generally required that medical services should be retained by contract and open tender, including as a condition, that the medical officers should attend at the same charge all patients on the order of the overseer, whether the patients were parishioners or non-parishioners."

The small fixed sum, or rather beggarly pittance allowed parish surgeons, may have occasionally led to the *abuse* complained of; but the worthy commissioners do not suggest adequate remuneration. They advertise for the lowest bidders, and obtain young and inexperienced officers. They seem to consider disease among the poor unworthy of the best treatment.

"In regulating the appointments of medical officers within the new unions, we have acted on the presumption that by the words of the Act (that the medical officer shall be 'a person duly licensed to practise as a medical man'), it was intended to include equally physicians, surgeons or apothecaries duly licensed to practise as such. Applications have been made to us to prescribe, as the qualification of the medical officer of any union, that he should be a member of the College of Surgeons as well as of the Apothecaries' Company; but as at present informed, we do not think that the public interests would be advanced by confining the qualification within narrower limits than those traced by the words of the Act, and which conform to the general practice. With respect to the general professional qualifications of the medical men who come within the words of the Act, we have relied on the diplomas of those who are charged by the Legislature with the duty of examining the qualifications of the candidates for practice, being assured that the recent improvements in medical practice and education are such as in general to render the later diplomas certificates of a degree of competency, equivalent to much practice on the parts of those who have had an earlier education. Under these circumstances we have considered that the interests of the public and of the profession itself were the best served by keeping the situations of medical officers in the new unions open to the competition of the whole body of medical practitioners. Instead of attempting to fix the price of the services of the medical practitioners for the union, we deemed it the most advantageous that each practitioner should fix the price of his own services, under competition. Amongst the inducements to accept these appointments, are the credit of the appointment of medical officer to an union by a Board of Guardians, the wider fields these appointments offer for the display of care

and skill, and for obtaining reputation leading to more profitable practice; inducements differing in degree, but similar in kind to those upon which men of the most eminent skill find it to their interest to give their services to the chief medical institutions of the country. We may be sure that the medical practitioner will, in fixing upon his terms, do nothing which he considers will not on the whole be advantageous to himself; and next, that he will consider the interests and advantage of his own profession. We have found it necessary, as a security against undue charges even under competition, to adopt as a rule that the aggregate charges for medical relief within the new unions shall not exceed the aggregate of the former expenditure for medical relief in the separate parishes now included in the unions. Instances have occurred where the local medical practitioners have combined to prevent a competition. The course taken in these instances for the protection of the rate-payers, and to secure the best treatment to the paupers, has been to suspend our sanction to the appointments, and to cause advertisements to be made to throw open the office to the competition of practitioners from a distance, or of the profession at large."

The profession alone are to blame for the competition scheme, for had they demanded remuneration for their services in hospitals, dispensaries, and other public institutions, it could not have happened. It is preposterous to continue gratuitous attendance, when every parish must find medical aid for the poor.

"In some unions, as in the Wycombe union, it has been provided that the terms of the contract should be a remuneration, at a given sum per head, on the number who receive medical relief; but with the proviso, that the gross charge should not exceed a given amount. It is stated to us in evidence, that this mode of proceeding, though adopted reluctantly by the medical profession, has operated very beneficially. The surgeon of the Amersham union states, in the course of an examination, 'I approve of the system; but the amount in the present contract is inadequate; I think I shall lose a guinea a week by it. In some of the parishes it is at present only one-third of what I have received in former years for the same time. But I approve of the system, for these reasons: it is a self-acting check upon the relieving officer in giving improper orders, or withholding proper orders; upon the applicant for medical relief, in making him feel that in receiving it he is a pauper, and causing the parish a specific charge for him; and upon the medical man, by causing an inquiry into each case, so that none can escape attention; and by that means, also

secures proper attendance to the patient. Indeed, the mode of contract forms a complete system of check and security in cases of pauper medical relief, the want of which was so much felt under the old system.'

"Has it tended to curtail the evil of sending all parties to the parish doctor for medical relief, which was so prevalent under the cases of contract in gross?"—"Yes, it has; I have many cases now that I am attending as independent patients, who used always before to come to me as paupers. One case is that of a woman of Penn; her son is a master bricklayer, with whom she resides, the cottage and garden their own. She has a daughter about thirty, a sempstress, who gets a very good living. This woman was, with her daughter, always attended by the parish. On my telling this woman that the parish paid a specific sum for her, she refused to be attended, and now pays for herself. There are many cases which evidence this effect of the system.'

"Of course, the new independent patients pay you?"—"Yes, they do; they pay us at the time they have the medicine.'

"Now, although you do not receive so much from the parish contract, will not the amount by these new independent patients more than make up the difference?"—"No, I think not; but it will go towards it.'

"We anticipate that the introduction of a better system will be beneficial for the destitute sick, as well as beneficial to the labouring classes generally; and that it will be found conducive to all proper interests of the respectable portion of the medical profession.

"It will, however, be observed, that the change in the system has not, in many instances, been so long in operation as to develop the whole of the effects which may be anticipated from it, in promoting voluntary and independent associations, to provide for the casualties of sickness and mortality.

"But even now the reports made to us of the very satisfactory effects of the operation of the rule, are becoming daily apparent. We cite the following passage from a recent Report made to us by our Assistant-Commissioner, Mr. Hall, as illustrative of the tenor of other incidental communications on the subject:—"The good effects of your arrangements as respects medical relief, are showing themselves in the shape of medical clubs among the labourers. One of the surgeons of the Wallingford union told me that several were in process of formation in his district; and I have heard that elsewhere the labouring class has evinced the same degree of foresight and providence; has given the same proof that, when thrown upon his own resources, and taught to rely upon his own exertions, the independent labourer can and will adopt measures answering to the necessity of the case.'

"Mr. Gulson states, in a recent Report

from Oxfordshire, 'Medical clubs are starting up in all directions. The proceedings of the board, as regards the medical department, have already been productive of the best results. Highly respectable medical men are undertaking to attend all cases for an annual subscription of 2s. for a single person; and for 4s. 4d. they engage to attend a whole family, however large, so that it does not include children above 16 years of age. At Witney, Benson, and other places, the labourers are subscribing in considerable numbers to independent medical clubs.'

"Mr. Gilbert reports to us, that in several parts of Buckinghamshire similar effects resulting directly from the change of medical relief, have been developed in a striking manner."

The establishment of medical clubs among the labouring classes, very forcibly demonstrates the want of confidence in the medical officers of parishes and unions, whose remuneration is wholly inadequate for the proper supply of medicines and medical aid. Every medical practitioner knows well, that he cannot afford medicines and advice to a family for a year for 4s. 4d.; and such an agreement is most unjust to those who make it. Let the Poor Law Commissioners consult the Medical Corporations, and they will find that our opinion is correct.

—o—

A Statistical Inquiry into the present state of the Medical Charities in Ireland, with Suggestions for a Medical Poor Law, by which they may be rendered much more extensively efficient. By Denis Phelan, Surgeon to the County Tipperary Gaol, and to the House of Industry and Lunatic Asylum, Clonmel, &c. 8vo. pp. 324. Dublin: Hodges and Smith. London: Longman and Co. 1835.

THE author of this work is entitled to the greatest praise for the immense labour, trouble, and expense which he incurred, as a provincial surgeon, in collecting the scattered materials which he has accumulated. As an individual, he encountered many difficulties in obtaining replies from the medical officers of the hospitals, infirmaries, dispensaries, lunatic asylums, and other public charities in Ireland, as some of those whom he addressed were interested in the abuses of such institutions. The majority, however, afforded him every information, and with a promptness which re-

flects great credit on them. He also addressed his circular to some of the provincial physicians and surgeons of England, from whom he received satisfactory answers. He also obtained a vast deal of information from the evidence given before the Irish Poor Law Commissioners, and from that given before the Parliamentary Committee on Medical Education and Practice; and he now publishes all the result of his inquiries in the work before us. He shows in the most glaring light the abuses in all the public charities in the sister kingdom, and suggests very satisfactory means for their correction. The object of the author is twofold; 1, to prove the inefficiency of all public charities as regards the poor, and the easiest means of rendering them valuable; and 2, to improve the better remuneration of the medical profession, and to adopt a just reform in appointing them to such institutions. It will appear by the sequel that the author has been most successful. He is, in our opinion, entitled for his benevolent exertions, to the esteem of every friend to science and suffering humanity. He informs us, in his preface, that he has been connected with hospitals, infirmaries, dispensaries, &c., and was recommended by Viscount Duncannon and Lord Lismore to Lord Heatherton (late Mr. Littleton), as assistant to, and one of the medical inspectors of, the Irish Poor Inquiry, but for some unknown reasons, he suspects on account of being a medical reformer, he was passed by. This we think was extremely probable, in consequence of the pestiferous influence of the Dublin medical corporations, than which there are not more filthy sinks of corruption in this or any other country. Fattened and fattening on monopoly, the misnamed heads of the profession in Dublin were, like our own immaculate heads, to be consulted by the Royal Commissioners; and their advice as to the selection of a medical reformer as an inspector of abuses in hospitals, dispensaries, &c., may be readily imagined. Our author was undismayed by this result, and prosecuted his useful labours. He might have exclaimed with the ancient warrior, "*veni, vidi, vici.*" He has defeated the Dublin monopolists by the publication of a work which refutes the chief of their one-sided

and partial evidence delivered before Mr. Warburton's Medical Committee. He concludes his preface in language which will prove "gall and worm-wood" to Irish medical corporators, and poison them like other vile and perishable insects.

"A work of this nature can only be desirable to those members of the legislature who feel an interest in the improvement of such institutions as are considered likely to be useful to the sick poor, to the medical profession, and to such governors of hospitals, dispensaries, &c., as are anxious to improve their respective institutions. If it answer the purpose, even though but imperfectly, of turning the attention of these respectable classes to a subject as yet but indifferently understood, I shall consider my time and labour to be amply repaid."

There cannot be a shadow of doubt that the present House of Commons will be greatly influenced by the self-evident and incontrovertible pile of evidence presented in this volume; and none more than Mr. Warburton, Mr. Wakley, the Attorney-General for Ireland, and other zealous friends of medical reform. The medical profession at the other side of the Irish channel owe a debt of gratitude to Mr. Phelan; while the governors of hospitals, infirmaries, dispensaries, and all public charities to which medical officers are appointed, cannot fail to be convinced of the defective state of these institutions.

We now arrive at the commencement of this most important work, and place the heads of its contents before our readers.

Mr. Phelan commences his introduction by giving an account of the "probable number of medical charities in Ireland, with their income, expenditure, &c." He then shows "the necessity for, and advantages arising from, charitable institutions to all classes;" and next adduces proofs "that infirmaries, fever hospitals, and dispensaries, are quite insufficient to meet the wants of the sick poor." Ample experience, from connexion with these institutions, has long since convinced us of the truth of this statement. We shall however allow the author to prove it beyond all doubt. His observations are so interesting and instructive to all medical practitioners, that we quote them fully, and they abound with the most valuable statistical information relating both to England and Ireland. We think this work

so valuable, that we shall review it at great length, though we hope to condense our extracts into less than fifty-six pages, or the space allowed by some of our contemporaries to productions of much less merit. We are anxious to inform our readers, both foreign and domestic, of the state of the public charities of Ireland, as regards the medical profession, and give them information which is now published for the first time.

It will appear by the perusal of the following facts, that it is impossible to separate them, and consequently we place them before our readers.

“There are no public documents to enable us to ascertain the exact number, or the entire expenditure, of the medical charities of Ireland, though in no country could such be furnished with equal facility, as the greater part of these institutions receive public aid in one shape or other. In the reports of the ‘Commissioners for auditing Public Accounts in Ireland,’ and published by order of the House of Commons, we have a short account of the Dublin hospitals, and of all the county infirmaries; and a return made by the different district lunatic asylums, and printed by the same authority, gives a very satisfactory view of these charities. The parliamentary report of 1832, though very defective, still gives much information as to the number, expense, &c. of fever hospitals. There never has been any report on dispensaries, which appears extraordinary, as considerable sums are expended on them, nearly one-half of which is raised by county presentments, affording a correct record, which there would be little trouble and no great expense in publishing. I have myself taken considerable pains to ascertain the number of medical charities in this country, the expenditure of each, the number of patients attended, &c., but though I have got a good deal of information on the subject, I have not yet had returns from all. The following is, therefore, given, not as an accurate account, but one which, I think, will be found nearly so:

Dublin hospitals (exclusive of several lying-in hospitals and ophthalmic institutions lately established)	7
County and other provincial infirmaries	38
Fever hospitals, including three in Dublin	64
Dispensaries	528
District lunatic asylums, including the Cork asylum	11
Total	648

“The following will give a tolerably accurate view of the annual expenditure of these charities:

Dublin hospitals	£28,701
Provincial hospitals, or infirmaries, as they are usually called	26,426
Provincial fever hospitals	13,607
Dispensaries	60,000
District lunatic asylums	22,965

Total annual expenditure £151,699

“To the above we may add 10,000*l.*, which is probably under the sum expended on the medical business of workhouses, and the lunatic asylums connected with them, making, in all, for public medical charities, an expenditure of about 161,699*l.* per year, and in which I do not include the funds raised for a considerable number of medical institutions *entirely* supported by subscriptions, amongst which are a few fever hospitals, several dispensaries, and a considerable number of lying-in and ophthalmic institutions, the entire expense of which cannot be under 14,000*l.* a year.

“The sources from whence this expenditure is supplied, are:—

Treasury grants to county infirmaries, and Limerick fever hospital, deducting pells and poundage	£ 2,653
Annual parliamentary grants to Dublin hospitals	14,374
County presentments for public charities	82,839
Subscriptions and donations for the above 648 charities	39,078
Petit sessions and other fines	1,742
Produce of property belonging to several of the hospitals	23,225

Total £163,911

“All these items, except those for fever hospitals and dispensaries, must be correct, as they are taken from official documents. The exceptions are estimated thus: the above alluded to parliamentary report gives an account of forty-six provincial fever hospitals, which, on an average of the years 1829, 1830, and 1831, cost 9,993*l.* 10*s.* 4*d.* per annum, exclusive of the expenditure of the Dublin fever hospitals. There are, at least, fifteen more that have not been included in the report of 1832, which I know to be on as extensive a scale as those that are. The entire annual expense of these sixty-one provincial hospitals would, therefore, be about 13,607, and the annual presentments for them about 9,000*l.* I am in possession of returns respecting the dispensaries of twenty-one counties, which I think are pretty accurate: they contain 340, and the annual presentments for them is 18,625*l.* 14*s.* 5*d.* With the exception of Mayo, I believe the remaining eleven counties contain dispensaries in as great proportion, and present for them at about the same rate. In that case the entire number must be about 518, and the yearly presentments 28,900*l.* Those of the cities of Dub-

lin, Cork, Waterford, Limerick, Kilkenny, and Galway, are not here included, and are about ten more, making for all Ireland 528 dispensaries; the presentments about 30,000*l*. This sum, doubled, will give the annual expense, as the grand juries cannot present more, though they may, and often do, less than the amount of subscriptions and donations.

"The amount of petit sessions fines, marked above, is that paid into the treasurers of county infirmaries; but this sum must fall considerably short of that yearly received at these courts, much of these fines being, I know, handed over to other charities, though illegally.

"It is impossible at present to ascertain the exact amount of subscriptions and donations annually paid to all these charities, but when the official accounts are published, I think it will be nearly 50,000*l*. a year.

"From this brief account of the numbers and the yearly expense of the mere medical charities of this country, or rather of those chiefly for whose support public aid is granted, their great importance will be at once seen; were they viewed merely in a financial sense, the sum annually raised off the public, both directly and indirectly, for their support, probably not less than 150,000 a year, would be a fair subject for the consideration of the political economist. But these institutions must be looked on very differently by every enlightened and humane individual, who wishes the improvement of Ireland, and has any knowledge of the condition of its people. When it is recollected, that, even during the most plentiful seasons, a great portion of the population of this country is in want of the common necessities of life—that contagious fevers constantly exist more or less in every county and in every town in the kingdom, but which, whilst food is only moderately cheap, seldom affect any very considerable number—that the condition, and I am sorry to be obliged to add, the habits of many are such as, on the occurrence of famine and distress, to greatly favour the origin and the rapid extension of that or of any other contagious disease amongst the poor, from whom it is sure to be communicated to the more comfortable classes, a circumstance well known to have frequently taken place within the last forty years—the great value of so many medical institutions for the relief of the sick poor, and to check the progress of contagious diseases, must at once be admitted. In the following pages I shall give several instances of the utility of fever hospitals and dispensaries in preventing, in checking, and in curing fever. And when the condition of the poor is considered, and it is known that in these institutions we have such valuable resources, without which, in fact, a deficient potato crop, or a scarcity of food in any way produced, must be sure to renew those frightful epidemic fevers which

we have already so often experienced, it will be seen that these charities are essentially and indispensably necessary for Ireland. Some instances will, and many more might be given, of places in which fever raged for years, sweeping away numbers of the poor and not a few of the rich, where the establishment of well regulated fever hospitals, or even of well managed dispensaries, gave such a check to its ravages, that contagious or malignant fevers but very rarely now occur. And though in such districts famine and distress have again and again recurred, and the same causes still exist to favour the origin or extension of this Irish plague, the means placed at the disposal of the governors and medical officers of these institutions have been productive of the most gratifying results. In such localities, as far as the sphere of the hospital or dispensary extends, fever, it will be seen, has become much more rare amongst the poor, the rich are but seldom attacked; and, where many valuable lives had been annually lost before the establishment of a fever hospital and dispensary, that disease is not only lessened in frequency, but, what is still more remarkable and gratifying, it is of a far milder character.

"When we find numerous facts of this kind clearly and indisputably established by the reports of persons having daily opportunities of witnessing them, and on whose evidence no suspicion can rest, and at the same time know, that, in many towns and districts, similarly circumstanced in respect to the comforts and habits of the population, but in which no fever hospital or well managed dispensary has been in operation, fever has been much more frequent, more virulent and fatal, we surely cannot, or at least ought not, be blind to the great advantages which both poor and rich derive from well regulated medical charities; nor to the numerous miseries which are suffered by the poor where no such institutions have been established, or in districts too remote to enable them to derive any adequate benefit from those which are perhaps within some miles of them.

"There is, I believe, no country, with a moderately dense population, in which we shall not find that a great number are unable to provide themselves with *efficient* medical aid when seriously ill. Even in wealthy England, a vast number of the working classes apply to the hospitals and dispensaries for advice and medicines. Dr. Walker, of Huddersfield, a very high authority, has ascertained that "little less than 70,000 objects are annually relieved at the London hospitals," independent of the still greater number receiving medical aid from the twenty dispensaries of that great and wealthy city. In the commercial and wealthy town of Liverpool, he informs us that in one year (1826), no less than 32,000 patients had been admitted to the three

dispensaries of that place, of whom 9604 were visited at their residences; and that in one year, little less than 36,000 objects received relief from the medical charities of that town. On examining the Rev. Mr. Oxendon's valuable 'Statistical Report of the principal provincial Hospitals in England,' I find that, not alone in such commercial and manufacturing places as Bristol, Leeds, Manchester, Birmingham, Sheffield (whose five hospitals alone give medical aid to 40,796 patients yearly, independent of a probably still greater number attended by the dispensaries), and the like, a great proportion of the population receive gratuitous medical aid, but that in the districts which, according to Marshall's Parliamentary Digest, are purely agricultural, great numbers of the working classes are relieved by these charities; and this, it should be recollected, independent of those attended by the parish medical officers. When we find this to be the case in England, where the tradesmen, and the manufacturing and agricultural labourers are so much more comfortable and better paid than in Ireland, we may be certain, that, with equal facilities to obtain medical advice from hospitals and dispensaries, a still greater number would here be found to apply for it. And accordingly we find this to be the case. From returns with which I have been supplied, through the kindness of the medical officers of the different charities in Dublin, and from other documents, it appears that the number of patients recommended in one year to five dispensaries in that city, viz. the Dublin General Dispensary, Talbot, Meath-street, George's, and South Eastern, is not less than 55,705; and that the medical attendants of the Mendicity Institution had charge of 9887; that at the Baggot-street, Mercer's, new Meath, and Jervis-street hospitals, and the Coombe Lying-in Hospital, 167,772 prescriptions were dispensed to *externs* during the same period; that at the Institution for the Diseases of Children, and at two others, for diseases of the skin, 12,000 were attended; and that thirteen hospitals received 15,566 *intern* patients, of whom 5700 were fever cases. If we calculate that each *extern* patient attends four times, which is considered by many a fair average, then the number of patients relieved at the above five hospitals is no less than 41,943 annually, making a total of 135,091 individuals receiving gratuitous medical assistance in the city of Dublin in one year (1833), when neither fever, nor any other disease, was particularly prevalent. I shall hereafter show how small a portion of the hospital *interns* come from beyond the precincts of that city, and, lest it be supposed that the surrounding country furnishes any considerable number of the *externs*, it may not be amiss to observe, that, for a population of less than 120,000 of the county of Dublin there are twenty-one dispensaries. In the

city of Cork, the north and south infirmaries and the fever hospital treated 1603 *interns*, and 21,179 *externs* in one year, and the dispensary 12,062, of whom 2947 were repeatedly visited at their own residences; in all 34,844. In Clonmel the Fever Hospital *interns* and the *extern* recommendations, on an average of five years, were 5771 annually, about three-fourths of whom were residents of the town and suburbs. The following table will more clearly show the proportion of sick poor relieved by the medical charities of three places in each kingdom:

Place.	Population.	No. of Sick in one Year.
London . . .	1,500,000	270,000
Liverpool . . .	200,000	36,000
Manchester . . .	227,000	18,951
Dublin City . . .	265,000	135,091
Cork City . . .	115,000	31,844
Clonmel . . .	17,000	4,329

Place.	Proportion of Sick to the whole population.
London . . .	1 to $5\frac{1}{2}$
Liverpool . . .	1 to $5\frac{1}{2}$
Manchester . . .	1 to 12
Dublin City . . .	1 to 2
Cork City . . .	1 to $3\frac{1}{2}$
Clonmel . . .	1 to $3\frac{7}{8}$

I have here assumed that each of the London dispensaries gives medical aid to 10,000 persons yearly, which, in a city of such resources and population, is only a moderate number.

"From these and numerous similar facts, which could be given, it is evident that both in England and in Ireland a considerable portion of the people of each country find it necessary to apply for professional assistance to the medical charities; but that the proportion in this kingdom is greater from well-known causes, viz. poverty and bad habits inducing disease, and rendering tradesmen, small farmers, and labourers, when overtaken by any serious illness, unable to pay for advice or medicines. As, therefore, in wealthy England we know that so great a proportion of the population do actually apply for advice to the medical charities, and, as might be expected from the condition and habits of the Irish, a still greater here, it may be fairly assumed, from these and other circumstances which have been alluded to, that, in this country, these institutions are indispensably necessary, and that without them there would be no safety for the health or lives of either rich or poor. The medical charities are in fact the *poor law* of Ireland, always, when well managed, and as far as their sphere of action and the extent of their funds admit, conferring vast benefits on the sick poor, chiefly by means of the professional assistance they administer. They are also, though in a much less limited way than could be wished, the *medium* of supplying the same class with

food and drink, sometimes with clothes, fuel, or bedding. And they often enable the wealthy and the middle classes to obtain professional assistance more satisfactorily, and at less expense, by locating well educated practitioners in country districts, where, but for such institutions, there would not be sufficient inducement for them to settle.

"It is therefore clear that the medical charities of Ireland are productive of great advantages to all classes of its inhabitants; that the benefits they confer are not confined alone to the sick poor, but extend very widely, and embrace even those who are able to pay for professional advice. It becomes then a subject of no small importance to enquire whether these institutions are numerous enough, possess sufficient funds, and are so managed as to be capable of affording adequate professional aid to the sick poor of Ireland. This, it is well known, they are not; for though in particular places, the most efficient relief is given to the sick poor of every class within a certain district, I shall have to give proofs, which I believe cannot be controverted, that numerous as our medical charities are, and large as the sums appear which are annually expended in their support, a vast portion of the sick poor of this country neither do, nor can obtain relief by their means; and, as there are no other substitutes for them, that great suffering, the loss of numerous lives annually, and other serious injuries are the consequences. When treating of each class of these institutions I shall show how far they are defective and inadequate to meet the wants of those for whom chiefly they were intended. At present I shall only give the following facts in proof of the insufficiency of our infirmaries, fever hospitals, and dispensaries."

Here we pause for the present, but shall next week give the author's contrast between number, extent, &c., of English and Irish infirmaries, fever hospitals, and dispensaries. We have adduced sufficient evidence to prove the philanthropy, benevolence, laborious research, and indefatigable industry of the author. Legislators, philosophers, the medical profession, the present generation and posterity, will do him justice, and award him unqualified praise, and the highest esteem for his great exertions to better the condition of his poor fellow-countrymen, and of the profession of which he is a real ornament.

(To be continued).

Observations on the Principal Medical Institutions and Practice of France, Italy, and Germany; with Notices of the Universities and Cases from Hospital Practice; to which is added an Appendix on Animal Magnetism and Homœopathy. By Edwin Lee. London: Churchill. pp. 216.

MR. LEE states in his Preface, that his volume will "be considered by those best qualified to judge, as presenting an impartial, and not inaccurate sketch, of the medical and surgical practice in France and Italy." We do not profess ourselves qualified, by experience, to judge of these qualities of his work, as regards the last named country; and we are happy to vouch for them as regards the former. But to qualified or unqualified judges, we venture to say the book will be pleasing. None are so capable of happy condensation of what they say as English writers, and none so capable of appreciating and so desirous to find that condensation as English readers; in reading, as in travelling, they care not for the scene on either side the road, but have their thoughts and hopes fixed on the end and aim of their prelections and peregrinations alone. Happy in this power, Mr. Lee has produced a small work that to the student desirous of information on the state of the continental schools and practice, will be of the highest value, combining, as it does, so much of the *utile* with the *dulce*—so many facts with so concise a manner of announcing them.

The first part of this volume is occupied with a review of the French Medical Institutions. Speaking of the facilities of dissection in Paris, the author remarks, that "they have some disadvantage, in the inducement they offer to the students to hurry through their dissection in a careless manner"—which is very possible: but it is by no means a sequitur that "the greater neatness of dissection observed in the English schools is no doubt to be attributed to the comparative scarcity of bodies." Were this the case, it would be better to have a course of dissections resembling the Barnicide's feast, an imaginary body before us, which we might anatomize even to the nicety of Haller's ultimate muscular fibre. No; something must be allowed for the time the French student has for the pursuit of his

anatomical knowledge—the course of study required being four years, and not twenty months—and much to the temperament of the youthful Frenchman: at all events, let us not, for the sake of “careful dissection,” relapse into the “plentiful scarcity” of subjects, that roused the murderous inventive faculties of the Burkes and Hares of past years!

We proceed briefly to enumerate the hospitals and infirmaries of the French capital.

The Salpêtrière contains six thousand individuals, the greater number of which are old and infirm females, the remainder being afflicted with mental alienation, epileptic and cancerous diseases, and the whole are divided into curable, incurable, and idiots. The first division is confided to M. Pariset, the second to M. Mitivié, and the third to M. Falret.

The Bicêtre contains three thousand persons, including the insane: the latter are attended by MM. Ferrus and Lelut.

The Maison Royal de Charenton is exclusively for the insane, and contains six hundred beds. M. Esquirol is the physician; in his statistics of the hospital from 1826 to 1833 inclusive, the causes of insanity were in the following proportion:—hereditary predisposition, three hundred and thirty-seven; domestic sorrows, two hundred and seventy-eight; reverse of fortune, forty-nine; political circumstances in 1830, thirteen; in 1831, fifteen; in 1832, three; in 1833 only one.

The Hospice de la Maternité contains four hundred and fifty beds: about three thousand five hundred accouchemens take place annually: no questions are asked on entry, and each patient may leave her child behind. A physician, two surgeons, and a midwife, perform the duties, assisted by one hundred and fifty female students of midwifery.

The Hospice des Enfants trouvés receives annually between five and six thousand infants: suckling infants are placed in one ward containing one hundred cradles. Three-fourths of the children received die, notwithstanding the favourable circumstances of locality and cleanliness.

The Hôtel Dieu contains twelve hundred beds, and averages nine hundred to nine hun-

dred and fifty patients constantly; there are only two hundred and twenty-four beds for surgical cases; three surgeons and ten physicians attend. The principal physicians are MM. Chomel, Piorry, Magendie, Recamier, and Trousseau, an abstract of whose particular modes of treatment is given. The present surgeons are MM. Roux, Sanson, and Breschet; every one knows that M. Roux's place was formerly occupied by Dupuytren. The practice of the latter able surgeon in some cases, as shortly described in the volume before us, we make no apology for extracting; they are the original views of a great and talented man.

“The nervous or traumatic delirium, which frequently supervenes on accidents and operations, and which, like delirium tremens, is marked by insomnia, continual restlessness, and absence of fever, was treated by M. Dupuytren by enemata of a small quantity of mucilaginous liquid, containing from six to twenty drops of laudanum, repeated three or four times, if the symptoms persisted, at intervals of six hours. This small quantity of laudanum, so administered, produces a more marked effect than three times as much taken by the mouth, and seldom fails to induce sleep, after the failure of other means. This kind of delirium leaves no traces of its existence after death: it most usually occurs in men of a nervous habit, and occasionally in women, but has not been observed in children.

“Wounds of arteries, if recent, are best treated by placing a ligature on the vessel between the wounded part and the heart. The only exception to this rule is when the artery is wounded near the extremity of a limb; in which case, in consequence of its free communication with inosculating branches, it is requisite to place a ligature both above and below the wounded part. A similar proceeding is required when the lesion of the vessel is of long standing, as the edges of the wound are then incapable of adhesion.

“Gonorrhœal ophthalmia mostly occurs from inoculation, but may supervene on the suppression of the urethral discharge, especially if the patient have been at the same time exposed to cold, or other exciting causes of ophthalmia. It should be treated by general and local depletion, revulsives, and emollient lotions. These measures are however insufficient, unless combined with the insufflation of a pinch of finely-levigated calomel, upon the ocular and palpebral conjunctiva, once or twice a day. One or two drops of laudanum should also be dropped between the eye-lids in the evening. The purulent ophthalmia of infants is essentially the same disease, and should be treated in a similar manner. Strumous ophthal-

mia was considered by M. Dupuytren to depend on inflammation of the retina, and was treated by the internal administration of belladonna, combined with other means indicated by the symptoms. From three to eight grains of the powder, or from one to three grains of the extract of belladonna, were divided into six doses: the patient took one of these every two hours; to prevent narcotism, either general or local, Seltzer water was usually administered at the same time.

"Gangrena senilis is not, as its name would imply, restricted to old persons. M. Dupuytren has termed the disease *Gangrène symptomatique*, believing it to depend upon inflammation and consequent obliteration of the arteries of the limb—ossification of the vessels, to which it was formerly ascribed, being only an accidental coincidence—the treatment consisted in venesection, repeated according to the urgency of the symptoms, low diet, cooling beverage, opium, and other sedatives, with emollient cataplasms to the affected part. By this treatment the average mortality is said to be as one to four. Previous to amputating a part affected with long standing disease, M. Dupuytren frequently established suppuration by means of blisters on some distant point. It was also his practice, after amputations, to wait an hour, sometimes longer, before dressing the stump: by this plan union by the first intention took place more readily, and the likelihood of hemorrhage was diminished.

"In prolapsus ani, M. Dupuytren excised two, three, or more folds of the skin on the margin of the anus, on either side. A similar operation was recommended by Mr. Hey. No dressing is required, and the recurrence of the disease is effectually prevented.

"Fissures at the margin of the anus may be divided into three kinds:—1st, those external to the sphincter, which are not very painful, and do not occasion spasmodic contraction; 2nd, those situated within the sphincter, affecting principally the mucous membrane—this kind causes tenesmus, and great pain, especially on the patient's going to stool; 3rd, those placed on the same level as the sphincter, are more serious and painful than the other kinds, which may generally be cured by simple dressings, emollient lotions, and sedative applications; whereas this variety requires the division of the sphincter on the fissure. M. Dupuytren was in the habit of prescribing an ointment composed of extract of belladonna and acetate of lead, of each a dram, to an ounce of lard, for alleviating the pain in these diseases.

"M. Dupuytren preferred excision to the ligature, for the removal of uterine polypi, in consequence of the greater facility with which the former is effected, and the few inconveniences it occasions when compared with the latter method. The patient being placed in the same position as for lithotomy, a speculum is introduced into the vagina, so

as to exhibit the tumour, which is then seized with a strong four-hooked tenaculum, with long handles (*pincés de museaux*), and gradually brought down through the inferior orifice of the vagina, the patient being recommended during the traction to strain as if in labour: on the division of the pedicle, the uterus immediately regains its usual situation. The operation is not in general very painful, and bleeding to any extent very rarely occurs."

La Charité contains four hundred and fifty beds. The laborious Velpeau is the first surgeon, and MM. Bouillaud and Rayer the physicians of the establishment. M. Bouillaud is a vehement partizan of the Broussaisian doctrines, and a most daring drawer of blood; thus, out of twenty-six cases of pleuro-pneumonia, each patient on an average was bled four times, cupped twice, and had twenty-four leeches applied: in about half the number of cases, blisters were also employed, and in one a purgative was given—successful practice, it would appear, for of the whole number, "two only died, twenty-three having been cured before the fourteenth day." M. Rayer is a "conforming" Broussaist.

La Pitié. The well known names of Louis and Andral are attached to the medical, and Lisfranc and Blandin to the surgical departments of this hospital. Mr. Lee lauds M. Lisfranc for his adoption of constitutional measures in surgical cases. It may be necessary to explain, that by constitutional measures, the author appears, throughout the book, to mean the employment of purgatives, and particularly of calomel—a rather narrow view of the matter, we may observe en passant. Lisfranc's clever operation of amputation of the cervix uteri is well described. The beds in the hospital amount to six hundred.

Saint Louis. Here are seven hundred beds, one hundred and eighty of which are for surgical cases, the remainder for cutaneous and scrofulous diseases. MM. Alibert and Bielt are the physicians in care of the majority of the skin diseases: the cases of psora are in a separate ward, under the care of M. Emery. Alibert uses chiefly external, and Bielt internal remedies, in the treatment of the complaints in question. M. Lugol has charge of the scrofulous patients: his practice is pretty extensively known in this country.

Hôpital des Vénériens contains six hun-

dred beds, and is too small for the number of patients. Three surgeons, MM. Cullerier, Ricord, and Manec are attached to the hospital. The former doubts the specific character of syphilitic affections, and acts very largely on his doubts, seldom employing mercury, and when he does, mostly in friction. M. Ricord is more free with its use, and generally gives the proto-ioduret. Gonorrhœa is treated much in the same manner as in England.

Hôpital des Enfants Malades. The acute cases here, are under the care of M. Baudeloque, and the scrofulous patients under that of M. Guersent. The latter order of patients, it appears, are placed in low ill-ventilated wards, little likely to ameliorate their condition. This is the more extraordinary, as M. Baudeloque in his late work, "*Sur la Maladie Scrophuleuse*," ascribes that disease to the want of pure atmospheric air alone. There is accommodation for five hundred, though only half the beds are usually occupied.

The Hôpital Necker, founded by the widow of the celebrated finance minister, is attended by MM. Bicheteau and Civiale. There are one hundred and twenty beds, which are chiefly occupied with cases of acute thoracic disease. We extract the following as a mode of treatment not generally known among us.

"Paralysis of the bladder, and vesical catarrh, in elderly people are treated in the following manner:—a stream of cold water flows from a reservoir fixed near the ceiling, through an elastic gum tube, having stop-cocks, and terminating in a silver catheter formed into a double tube by a central partition. The patient being in the recumbent position and the catheter introduced, the water passes into the bladder by one side and out by the other. A continued stream of water through the bladder is thus kept up for about ten minutes, and repeated every second or third day: the quantity of water passing into the bladder may be regulated by the stop-cock, so as to prevent undue distension. The beneficial effects of the method are attributed to the clearing away of the accumulated mucus, and to the tonic action of the cold water upon the bladder."

The Hôpital Cochin contains one hundred beds: it bears no particular reputation.

So much for the Parisian hospitals, which appear, from the account before us, to be conducted with a liberality of spirit that we

would wish to see imitated in those of London. Two prominent and well-turned features in the arrangements regarding them are, the admission of patients without other recommendation than that of disease, and the payment, for the most part, of the medical officers. If it be true, as Mr. Lee asserts, that the results of English practice are more successful than of Parisian treatment, it is equally true that English physicians and surgeons are much more chary of information to the students, of their valuable secret, than are the Parisian hospital attendants of their unsuccessful mode—the obvious reason of which is, that your London medical man, once in an hospital, cares not either for student or governor—the former *must* attend his clinique, and the latter *will not* pay him. Were the Parisian plan of visiting the hospitals as early as six in the morning obligatory *here*, we suspect it would be found mighty inconvenient and vulgar to be attached to them, and then all might stand a chance of receiving and giving improvement, and the precious privilege of withholding information would not be vested in a few, who bask in the smiles of those with whom rests the gift of that privilege. However, we are Jobs in long suffering, and await with patience the day-spring that shall enlighten our hospital wards—*arrive it must*.

In a chapter of "*Observations on Continental Practice*" (it should have been on "*French Practice*"), Mr. Lee gives a rapid sketch of the state of medical theories and practice among the Parisian faculty. Previous, however, to entering on this, he takes occasion to praise the system of concours, which he says "certainly affords the best guarantee to the public and to hospital patients, of the skill of their professional attendants:" at the same time he remarks, as regards its introduction here, that "under the present system, the voice of public opinion and criticism, far more strongly expressed in England than elsewhere, and the judicial investigation which ensues on fatal cases, where suspicions of improper treatment exist, are the principal securities for the capabilities of hospital professional attendants." Now, if Mr. Lee has no better reason than this for excluding the concours system from this country, he would have done well to say nothing about that system

at all: for when he asserts that "the voice of public opinion and criticism," and the "judicial investigation," secure capable men, he supposes that the fear of these things deters blockheads from seeking the offices in question; which is not found to be the case, as could be shewn in the persons of some few existent hospital attendants, from whom the voice of "public opinion" might in vain demand one idea, and whom "judicial investigation" would in vain attempt to shame.

The Broussaian doctrine, we are told, is on the wane in France: "the number of exclusive Broussaists is very small, although many of the profession still incline to the principles of that doctrine." At this we wonder not: Frenchmen are marvellously fond of changing theories, as well as dynasties; and when it is considered that in the last forty-five years, the nation at large has had nearly half the number of governments, constitutions, and governors, we may surely allow the medical faculty a little variety in their theories and despots. For us, we hold that the doctrines of Broussais are still destined to resume their sway, when each pathologist has gratified his vanity by styling himself the founder of a new system, and when that system has ran its brief career.

Mr. Lee finds great fault with the inactivity of French physicians, in prescribing medicines, and more especially purgatives: and the activity they do exhibit in depleting, he ascribes to the diffusion of the Broussaian doctrines. We agree with him, and consider the *veto* placed on the use of purgative medicines as by no means a strict deduction from those doctrines: the illustrious author of them certainly overlooked facts when he maintained their hurtful tendency in fever, even supposing that state to be a consequence of gastro-enteritis; this, however, is not the place to discuss the point.

Chronic diseases are mostly treated by hygienic means, mineral waters, &c.; and stimulant, tonic, and mercurial medicines abstained from. Baths form a very frequently applied remedy in France, whereas they are seldom thought of here. Auscultation and percussion, the author considers, give the French a vast advantage over most English practitioners. Why are not English medical students more frequently instructed in those arts?

The French surgeons the writer finds to be culpably negligent of general treatment in surgical cases; and he says they trust entirely to local applications: this is the fact; on the other hand, the French retort that we slay our thousands by over-dosing—which is also true. Healing of wounds by granulation is now pretty nearly done away with in theory, though Mr. Lee says it is maintained in practice. Arteries are now tied altogether à l'Anglaise; that is, without ligatures of reserve. The principles by which the treatment of fractures is directed are also very similar on the Continent and in England. Continental surgeons waste no long time in attempting the reduction of strangulated hernia, and they proceed to operate, and to operate cleverly too, for they always divide Gimbernat's ligament, which Mr. Lee considers to be the point of constriction, though Sir Astley Cooper does not. Lithotomy is performed by the lateral method, as in England, except that the bistouri caché supersedes the cutting gorget. The bilateral has however come into vogue; of seventy patients thus operated on by M. Dupuytren, six only died. In lithotrity, the method by perforation, as employed by M. Civiale, is now less generally adopted than that of breaking down the calculus by means of Jacobson's and Heurteloup's instruments. Flap operations are now less frequently performed in France than a few years ago. Amputations at the articulations are more frequent than in England. In burns and scalds stimulating medicines are less used on the continent than here. Urethral strictures are treated by rest in bed, a catheter being kept in the bladder, and its size gradually increased. Cold applications are not frequently used in France and Italy. Diseases of the eye are not so much attended to in France as in England and Germany, and the practice is in general inferior; there is no ophthalmic institution in Paris. The treatment of uterine disease is better and less empirical in France than England; and it would require to be so, for Mr. Lee tells us that "those diseases, as well as some others that supervene upon difficult parturition, are more prevalent" in the former than the latter country.

We shall take up the second and third parts of this volume next week; meantime we cordially recommend it to the profes-

sion, particularly to those about to take a professional gaze of the Continent.

—o—

**The London Medical
AND
Surgical Journal.**

Saturday, October 10th, 1835.

—

**MEDICAL EDUCATION—NECESSITY OF
ATTENDANCE ON LECTURES.**

In our last number we alluded very briefly to the subject of medical education, on which we had not at that time leisure to dilate. Our contemporary the *Lancet*, in whose views we have generally found reason to acquiesce, has not, we think, treated this question with his wonted sagacity; we therefore propose to argue it freely, but without the smallest wish to interrupt the amicable relations which we have much pleasure in maintaining with a journal so influential in the good cause of medical reform: in saying this much, we are not apprehensive of the charge of obsequiousness—our alleged sins being usually quite of an opposite tendency.

Our contemporary testifies a horror of the “certificate system,” in which we entirely participate, in as far as it involves a monopoly on the part of certain schools; the whole doctrine of “recognition” is unto us an utter abomination: but when we are told that all medical lectures are useless, and ought to be done away with, and still more when it is proposed, as a substitute for the present system, that each surgeon should instruct his own apprentices in every branch of medical science—in other words that he should become a walking university—we cannot conceal our surprise that opinions so wild should proceed from the same source with those enlightened and liberal sentiments, to whose fearless announcement the profession mainly owes its approaching regeneration.

First, with respect to lectures.

It must be admitted, and has been admitted by us repeatedly, that *knowledge*, from whatsoever source derived, ought

to be the only thing required from the student at his examination; but the question is, can the requisite knowledge be attained under ordinary circumstances without attendance on lectures? Certainly not—unless by the course of private instruction proposed by our contemporary, which we shall presently show to be impracticable. Most branches of medicine, to be rendered even *intelligible* to the beginner, require the aid of demonstration or experiment; to say nothing of the greater strength and durability of the impressions derived from what we see than from what we hear.

“Segnius irritant animos demissa per aures,
Quam quæ sunt oculis subjecta fidelibus, et
Ipse sibi tradit spectator.”

And even with reference to those subjects whose illustration comes less under the cognizance of the external senses, the colloquial style of a lecture affords scope for much clearer and more minute explanation than can be expected from written treatises, to which the student, debarred from attendance on lectures, must chiefly resort for the exposition of principles, and for direction in his own observations.

These things being considered, we cannot perceive how a student is to be qualified for his profession independently of lectures, unless the affluence of his circumstances enables him to engage men of ability and experience as private tutors in each branch of medical science. But this leads us to the proposal of our contemporary, that every practitioner should, in effect, become private tutor to his apprentices.

We must confess that if this proposal came from any other quarter, we should be much disposed to laugh outright—but we *will not* laugh at the *Lancet*; with all its extravagances, and they are many, the *Lancet* has a right to the gratitude and respect of every medical practitioner in Great Britain.

Well then, by hypothesis, every general practitioner is to teach his

apprentices medicine in all its branches. *Exempli gratia.* An old gentleman who has practised for thirty or forty years in a country place, perhaps much to his own credit and the benefit of the neighbourhood, is to teach his apprentices *chemistry*. This worthy man has some floating notion that there be two such substances in nature as *hydrogen* and *oxygen*, and mayhap he may have an idea that an acid will turn syrup of violets red, and that an alkali will turn it green; and moreover, that there is a doctrine called “the doctrine of definite proportions,” which passeth the understanding of man; if all his apprentices do not turn out Davies or Wollastons, it is evident that they are very stupid lads.

Again. A very good practitioner, who began business many years prior to the publication of Paris and Fonblanque, is to instruct his young friends in medical jurisprudence. This honest man has once in his life been before a coroner, on which occasion his hair stood on end,

“cum sudor adimos
Manaret talos.”

Fodere and Orfila may shut up shop—our young gentlemen reduce state medicine to an exact science.

Once more. An apothecary resident at the Land's End, and rolling in riches of course, is to teach his youngers—what shall we say?—every thing. For this purpose he purchases a chemical apparatus which costs him rather more than twice his yearly income; he lays in a stock of subjects for anatomical purposes, and brings the county about his ears: he takes the young gentlemen out on a botanical excursion, and finds, on his return, that the greatest man in the neighbourhood has died of apoplexy, and, what is worse, the greatest woman has delivered herself of twins!—his occupation's o'er. Are not his apprentices ungrateful dogs if they do him not some credit after this?

But to be serious. Admitting what

is unquestionably true, that the professional acquirements of the general practitioner in the present day are frequently very extensive, does our contemporary really think that any one practitioner is competent to teach every branch of medical science? In all history we know of only one man equal to such a task; that man was Haller, whose versatility of talent, and variety of attainment, rendered him the wonder of his age. Let every country practitioner be a Haller, and we will admit his sufficiency to instruct his pupils in every department of their profession; let every day consist of forty-eight hours instead of twenty-four, and we will allow that he might find time to do so: but, as matters actually stand, we cannot but regard the pantosophical surgeon-apothecaries of our contemporary, as

“likest hovering dreams,
The fickle pensioners of Morpheus' train.”

We do not believe that lectures can be dispensed with, nor do we see any reason why they should; but we see much reason why the present infamous system of monopoly should be forthwith abolished. Let any regular member of the profession, who desires it, have a fair opportunity of distinguishing himself as a lecturer if he can; only let him not lecture on every thing—that would be as bad as the pantosophical apothecaries.

We quite agree with our contemporary, that the greater part of the lectures now delivered in the metropolis are most woful stuff; this is, because they are the products of recognized stupidity: let the field be thrown open to unrecognized talent, and we shall have lectures worth hearing.

Although we contend for the great utility of lectures as a part of medical education, and see no reason whatever why attendance upon them should not generally be enforced, we allow that there are cases in which too rigid an adherence to this system might be un-

just to individuals—to talented but poor young men, who, by their own industry and genius, have collected knowledge under circumstances most unfavourable to its acquisition; we trust, that in the improved state of the profession, towards which we are advancing, some provision will be made for such cases, and that the examining board will be invested with a discretionary power of granting an examination and a diploma in those comparatively rare instances where the candidate possesses ample knowledge of his profession, but has been prevented by pecuniary difficulties from conforming to the prescribed system of education.

—o—

Foreign Medicine.

Inflammation of the Blood.

IN the August number of a periodical work, entitled "*Traité de Medecine Pratique*," M. Piorry emits the notion of the above disease, to which he has given the name of *hemitis*. He says, "I consider that blood to be inflammatory, the clot of which is covered with a pseudo-membranous layer of varied thickness." Previous to giving this definition, he discusses the value of the buffy coat as a sign of inflammation, and naturally enough decides in the affirmative. But is this coat the intrinsic product of the blood? We think so; yet we have heard M. Bouillaud advance an hypothesis on the subject, which appears ingenious. "The buffy coat," says he, "may probably be the product of a pseudo-membranous exhalation of the internal tunic of the irritated vessels." We, however, allow the inflammation of the blood as the cause of certain localizations; and a long time ago we endeavoured to demonstrate that the efficacy of bleeding in the treatment of inflammation, far from being a support to solidism, argues altogether in favour of the humoral doctrines. Inflammation of the blood is sometimes primitive, but the extensive and intense local inflammations are most certain to give rise to *hemitis*. Inflammation of the blood may occasion local inflammations, and the latter are in turn capable of determining he-

mitis. *Hemitis* may explain that period of incubation with fever, which precedes certain inflammatory localizations. This is certainly theory; but, adds M. Piorry, "theory in this case so closely approximates to the truth, and is so charged with practical results, that some weight should be allowed to it."—*Journal Hebdomadaire*.

[With all deference to the authority of M. Piorry, we are of opinion that the above is straining at a pathological novelty; nor is the "close approximation to the truth" at all evident. We suspect it altogether to be an offering at the shrine of the humoral pathology just now so much in fashion with the French rulers of medicine].

Sulphate of Quinia used in Fever by the Endermic Method.

Dr. Raciborski relates ten cases of fevers, most of which were either relieved or cured by the above remedy thus administered. The conclusions from the details are referable to the following heads:—

1. The sulphate of quinia is capable of being absorbed by the denuded dermis, without losing any of its febrifuge properties.
2. It may be advantageously employed whenever the internal administration is either contraindicated or impossible, as in cases of gastro-intestinal inflammations, spasmodic vomiting, in fretful children, in patients where there is mechanical obstruction to the introduction of the remedy, &c.
3. Though it may be given in such cases in glyster, the facility in producing an absorbing surface, and the energetic action of the sulphate thus used, should lead to a preference of the endermic method, the more as the fecal matters in the large intestine prevent the effect of the salt.
4. There are cases in which the physician is necessitated to adopt the endermic method: of this kind are cases of pernicious fever combined with inflammation of the digestive tube, and accompanied with vomiting and diarrhoea, which would not only be exasperated by the action of the salt, but by throwing off a great part of it, would prevent its acting with sufficient energy to stop the attack.
5. In pernicious fevers free from inflammatory complication of the digestive tube, it would perhaps be better to divide the sulphate into several doses, some to be given

by the mouth, others by the skin, than to gorge the patient with huge doses of it—doses that might produce irritation of the digestive tube, and prevent absorption.

6. Administered in this manner, the sulphate succeeds equally well in all the varieties of intermittent fever: I have seen it cure tertian and quotidian intermittents, and M. Chomel has used it with considerable success in quartans.

7. The medium dose should not exceed four grains at once, but it should be repeated several times.

8. In those rare instances where this dose is not sufficient, it is better to establish several absorbing surfaces of small size, and divide the dose among them, than to apply a large quantity on one surface, because, in that case, the remedy soon produces eschars that prevent absorption, either by their intervening thickness, or by retaining great part of the quinia in their interstices.

9. Accordingly, the blister ought not, at the furthest, to exceed a six franc piece: its locality should not be far from the spinal cord and the digestive canal, and therefore the epigastric and hypochondriac regions are the preferable points for their establishment.

10. At each application the false membranes that form should be carefully removed, in order to make free the absorbing surface.

11. Analogy leads us to think that the endermic method might succeed in all the other diseases in which the sulphate of quinia is indicated.

—o—

PERFORATING ULCER OF THE DUODENUM. BY DR. ABERCROMBIE.

A LADY, aged thirty, had been long liable to pain in the right hypochondriac region, which affected her chiefly after meals, and was considerably increased by the motion of her body. On Tuesday evening, 15th November, 1829, she was suddenly seized with most acute pain in that situation, which was soon followed by symptoms of ileus, accompanied with a feeble rapid pulse, and appearance of extreme exhaustion. She lived, however, till Sunday morning, being upwards of one hundred hours from the attack.

Inspection.—There were the usual appearances of most extensive inflammation, with a thick coating of false membrane, covering every part of the bowels, the liver, and the peritoneum lining the

parietes. At the very commencement of the duodenum, close to the pylorus, there was an ulcer, less than half an inch in diameter, with elevated edges, and considerable thickening of the surrounding parts. It was so deep in the centre, that it appeared to have been bounded only by the peritoneum covering the part; and this had given way by a round opening about one-sixth of an inch in diameter. The edges of the excavation itself had that smooth and cicatrized appearance which has often been described in similar cases.

The remarkable feature in this case is the length of time from the attack to the fatal termination. The usual period, in my observation, has been from eighteen to thirty hours, and it appears that some of the French cases were fatal in five or six hours. This difference in the rapidity of the symptoms produced by the escape of fluids from the stomach or intestines into the peritoneal cavity, may be supposed to depend partly on the quality of the fluids. But something would also seem to depend on the state of the parts; and there are facts which would seem to show that a morbid cavity is less affected than the healthy peritoneum. This conjecture seems to be illustrated by a case which I saw during the present season with Dr. Robertson and Dr. Macintosh. The patient was a child between five and six, and the case began with symptoms of chronic peritonitis. After some time, a circumscribed hardness formed round the umbilicus, which gradually became soft, and at last burst. The opening at first discharged purulent matter, afterwards thin feces, and frequently articles of food in a half-digested state, sometimes little changed. The child lived in this state for about ten weeks; and then died gradually exhausted. On inspection, the external opening was found to lead into a large cavity full of feculent matter. This cavity was formed by adhesions between the omentum, peritoneum, and surface of the intestines, all in a morbid condition; and a portion of intestine, high up in the canal, communicated with the cavity by several openings.—*Edinburgh Med. and Surg. Journal.*

—o—

CASE OF BILIARY CALCULUS OF GREAT SIZE. BY DR. OMOND.

On the 17th August, 1830, I found Mrs. S., a married woman, forty years of age, complaining of extreme tenderness of the abdomen, much increased by moving, with the general symptoms of fever, the pulse being full and strong, and the bowels confined. She stated that she had frequent attacks of inflammation of the bowels, the last being a few months ago; that constipation was always a prominent symptom; and that the remedies used were blood-letting and strong purgatives. She is of gross habit of body.

After bleeding, a cathartic prescription was given, containing calomel and colocynth.

18th August.—The blood-letting partially relieved the pain of abdomen, which returned only at intervals. Various medicines have been tried, and all are speedily vomited. Several injections have also been administered, but without effect, not being retained for any time.

19th August.—Stercoraceous matter has been ejected by vomiting to-day, and the symptoms continue urgent as before.

9th September.—Since last report, every medicine tried has completely failed, the stercoraceous matter being still rejected two or three times a day. Strongly purgative enemata have failed to relieve the bowels. Mrs. S. is much weaker, but still takes nourishment daily. The enema-syringe was now employed by the attending surgeons, instead of by a nurse as formerly, and very large quantities of fluid used, to the extent of several basins full. After the third attempt some feculent matter appeared.

15th September.—The pump has been daily used, and the vomiting has ceased. Yesterday a strong cathartic was given, containing seven grains of calomel, and to-day a calculus, about three inches in circumference, has been passed *per anum*.

10th October.—The patient is now able to walk about. She has passed several smaller calculi, and promises to improve gradually. The calculus consists of cholesterine, having the peculiar crystalline texture, and is in the Museum of the Royal College of Surgeons of Edinburgh.—*Edinburgh Med. and Surg. Journal*. —o—

MEDICAL BOTANY.

PLATE VI.—HELLEBORUS.

POLYANDRIA Polyginia.—Nat. Ord. Multisiliquæ, Linn. Helleboraceæ, Juss. Black hellebore. Christmas rose. Radix. Ed. Lond. Dub.

This plant, which was formerly called *Melampodium*, is perennial, and is indigenous in the mountainous regions of the south of Europe, as the Alps, Pyrenees, and Apennines. The earliness of its flowers, which sometimes appear in December, has gained it a place in our gardens.

The roots consist of a black furrowed roundish head (*rhizoma*), about the size of a nutmeg, from which short articulated branches arise, sending out numerous descending radicles, very simple, smooth, brittle, about the thickness of a straw, from a span to a foot in length, deep brown on the outside, white or yellowish-white within, exhibiting 4-6 bundles of vessels disposed around the *medulla*, and of an acrid, nauseous, and bitterish taste, exciting a sense of heat and numbness in the tongue, and of a nauseous acrid smell. These radicles only are used in medicine, and the head and branches are rejected. For the roots of the real black hellebore, those of some conge-

nerous plants are occasionally substituted. The surest way to avoid mistakes is by the herbalist cultivating the plant in his own garden.

Neumann got from 2880 grains 380 alcoholic and 181 watery extract; and inversely, 362 watery, and 181 alcoholic. Its active constituent seems to be of a volatile nature; for it loses its virtues by keeping, and water distilled from it has an acid taste. It has been more recently examined by Feneuille and Capron, who found in it a volatile and a fixed oil, resin, wax, a volatile acid, bitter principle, mucus, alumine, super-gallate of lime, and of potass, and an ammoniacal salt.

Medical Use.—In large doses hellebore root is a drastic purgative; in smaller doses, it is diuretic and emmenagogue. It has been used as a purgative in cases of mania, melancholy, coma, dropsy, worms, and psora, and as an emmenagogue. But its use requires very great caution, for its effects are very uncertain, and affected by many circumstances.

It may be exhibited in the form of extract, although its activity be much dissipated by the preparation. An infusion and tincture certainly promise to be medicines of more uniform powers. Willdenow says, that the black hellebore of the ancients is his fifth species, the *Helleborus orientalis*, the *H. officinalis* of Salisbury and Sibthorp.

—o— BOOKS.

In the press, a Compendium of the Ligaments, Bones, Dislocations, and Fractures; with wood-cuts. By Alex. M'Nab, junior, M. R. C. S.

An Introduction to Hospital Practice, in various complaints: being a Clinical Report of Fever, Gout, Rheumatism, Cholera, Jaundice, Erysipelas, Insanity, &c. &c.; and Diseases of the Chest and Heart; with Remarks on their Pathology and Treatment. By C. J. B. Aldis, M. D., M. B., and L. M., Inceptor Candidate of the Royal College of Physicians, London. 8vo. pp. 125. London: Longman and Co. 1835.

A Literal Interlinear Translation of Gregory's Conspectus Medicinæ Theoreticæ, with the original text; to which are added, an Ordo Verborum, and *rules* for constructing and arranging the words of Latin sentences in legitimate order for translation; illustrated by passages from the more difficult passages of Celsus and Gregory. By Robert Venables, A. M., M. B. Oxon., &c. 12mo. pp. 122. London: Sherwood and Co. 1835.

An accurate translation, and a great assistance to students.

—o— CORRESPONDENTS.

W. S.—Many thanks for the parcel.

A Student.—Yes, before the 21st; and attendance on Anatomy, Chemistry, or Materia-Medica, will be admitted.

Crito.—We shall give it attention.

London Medical and Surgical Journal.

No. 194.

SATURDAY, OCTOBER 17, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XVIII.

Various phenomena of Acute Gastritis—Necroscopy.

THOUGH I have shewn that inflammation may traverse the whole course of the intestinal canal, from the stomach to the rectum, you must not imagine that it necessarily follows that course, and that there is an entity called gastro-enteritis necessarily commencing in the stomach and necessarily terminating in the colon. The reverse may take place, and the inflammation proceed from beneath upwards: in that case, after a few days of colic, which may be strong enough to cause the name of dysentery to be applied to the disease, the inflammation rises into the small intestines and as far as the stomach, and the accompanying symptoms of enteritis in the first instance, and then of gastritis predominate. This leads me to exhibit inflammation, commencing in the lower portion of the digestive canal. It may be in this manner developed, in consequence of improper diet; the patient then has colics, accompanied with obtuse sensibility of the belly: a difficult and painful but not excessive diarrhœa attends; the appetite is not deranged; there is little or no meteorismus. This state may continue from three to twenty days: I had a patient the day before yesterday, in whom it had persisted twenty days. Generally speaking, and especially among the poor, no pursuit is stayed by it; it is looked upon as a simple complaint, because it does not prevent their eating and going about their occupations, until it obliges them to go to bed; whereas among the rich, who attend by times to their slightest ailments, it is more easily remedied. Those who neglect these colicky pains and diarrhœa, suddenly fall ill, and have malaise, fever, prostration, head-ache, great lassitude, ardor that seems to evaporate upwards, sinister presentiments, &c.; they are found to take to their bed with

acute gastro-enteritis. Should the inflammation of the lower portion be inconsiderable and predominate in the upper part, the purging ceases, and is wanting throughout the disease. Should the stomach be stimulated, it is possible that ataxic symptoms may come on, and the patient die without the return of diarrhœa. Perhaps the autopsy will give no sign of this diarrhœa, which was the primary disease; but if you are capable of judging of the value of cadaveric lesions, you will readily comprehend why it has not re-appeared, and why you see no traces of it; the fact is, that a revulsion from the lower to the upper portion has taken place; but death rarely happens in this case. Most frequently the inflammation of the upper portion is remedied by mild drink, and, after four or six days, the diarrhœa is re-established and remains the predominant phenomenon; and the probability of this will be greater the longer the affection has existed previously to the acute stage.

Thus we may have two forms of diarrhœa in acute gastro-enteritis; one proceeding from above, the inflammation having travelled from the cardia to the anus: it does not appear until after twelve, twenty, or more days of the acute febrile state, and when the gastro-enteritis has not been arrested; another, which has commenced from below, has been stayed for some time, during which the inflammation has predominated in the upper portion, and returns when the descending inflammation reaches the ileo-cæcal region. There are cases in which the higher inflammation is not sufficiently intense to stay the diarrhœa. Thus, a person who has diarrhœa in the first instance may have it suspended or not, but he will always have it suspended when the gastro-enteritis is in a high degree, and he never has it when the upper inflammation does not supersede the lower.

A third form of diarrhœa may obtain, but is less common than the preceding. I allude to patients who have neither colitis nor gastritis, but whose principal point of irritation is in the right hypochondrium. In that case the duodenum is the point most commonly affected; there is pain of the region occupied by this organ, a pain that may be propagated to the liver, while bile is

frequently poured into the stomach; there is a certain degree of meteorismus and tendency to shivering and heats, especially after eating and during the second stage of digestion; there is neither diarrhœa nor vomiting, and ultimately fever is exhibited, with redness and dryness of the tongue, thirst, frequent pulse, restlessness, &c. In this case the patient either continues without diarrhœa, the inflammation predominating above; or he has it as soon as the inflammation, which travels downwards, has passed the ileo-cæcal valve. Meteorismus without diarrhœa shews that the inflammation has reached the end of the ileum; the appearance of diarrhœa marks the period when it has passed the valve.

All these combinations are possible. To lay down an invariable march in acute gastro-enteritis and to characterize it exclusively by such and such symptoms is to run the risk of never understanding it at all. Therefore it is that I have exhibited inflammation to you as coming, going, and pursuing all manner of routes in the digestive tube; it is the natural method, for it is following nature step by step.

Would you now that I should enter upon the probabilities and describe what symptoms characterize the first, second, and third forms? The first, that which commences from above, attacks in preference persons that have been abusing stimulants, but stimulants of a bitter kind; the same is often the case with regard to the second form; the third more particularly affects those who have been subjected to bad food, who have neglected the consequences of purging and bad digestion, and who have gone on heaping food in the stomach in spite of previous indigestion. M. Scoutetten has made some interesting experiments on this subject. By means of aliment of an exciting but superior quality, combined with irritating alcoholic fluids which exalt the sensibility of and redden the mucous membrane, he induced gastritis and gastro-enteritis without diarrhœa, in animals; by means of indigestible, spoiled and putrid food, and the concurrence of cold and humidity, he produced the same diseases in the secreting degree, and with diarrhœa. In the former case the villousities and sanguineous network of the digestive canal were specially affected; in the latter the mucous follicles and the entire exhalant and secretory system suffered more from the inflammation than the properly called mucous membrane. These, be it remarked, are very important distinctions.

Let us pause on the additional phenomena of gastro-enteritis. Inflammation rarely remains limited to the digestive canal. It is ever tending to gain space and even to propagate itself, is always active and predominant when nothing has been done to stop it, and, *a fortiori*, when improper means have been used for that purpose. This very mobility it is which gives the physician so

much power in combatting it, and is far from reducing him to a purely speculative and passive condition, as has been affirmed; in the majority of cases he can do whatever he pleases with it, provided he has sufficient talent.

The most ordinary additional or disseminative symptoms of the primary irritation are—1. The redness and dryness of the tongue, with the alteration of the mucus it secretes. These symptoms, which I call organic sympathies, may be considered as the repetition of the inflammation of the digestive canal, and go on to the production of aphthæ and ulcerations. 2. The same phenomena in the pharynx and larynx are explicable in the same manner. 3. The irritability of the skin; this may amount to inflammation. 4. That of the bladder is liable to a similar result. You may conceive of all these phenomena by the various ways in which the inflammation shews itself. You see wherefore some individuals have difficulty in swallowing, the inflammation proceeding from the cardia to the pharynx, and wherefore others have none; wherefore some have cystitis, while others are free from it, &c. When inflammation is badly managed, it may find its way to every part, and cause the most frightful ravages at a distance from its primary focus; I have seen it, in openings of the mucous membranes, in the pharynx, in the genital organs, become rapidly gangrenous. 5. The nervous phenomena; these are of the first importance, and you cannot too closely consider them; whenever there is an acute inflammation of the digestive canal, you may be certain that the nervous centres will be unfavourably influenced by it. In the slightest degree there will be restlessness and alteration of the affective faculties; frequently the acts of the patient can scarcely be recognized; a man who only appeared to be prudent will become pusillanimous when gastro-enteritis takes possession of him. Inflammations of the lungs never give him the smallest mental inquietude, unless he be a physician who is aware of the jeopardy in which he stands. The more intense and extensive gastro-intestinal inflammations are, the more sinister are the presentiments: if it descends to the lower portion, the patient will return to himself, will come out of his stupor, and will have hope, though there be still considerable fever: you behold another man, and this change occurs immediately upon the inflammation ceasing to predominate in the superior portion, that is, in the stomach and small intestines. It is not true that the cerebral symptoms are connected exclusively with the alterations of the mucous follicles prevailing in the ileum. When these symptoms exist simultaneously with layers of thin inflamed follicles it is invariably because the upper portion is affected at the same time; the moment the inflam-

mation has left it and descended to the lower portion, the nervous phenomena, the terror, presentiments, delirium, stupor, subsultus tendinum, disappear, and, if the patient dies, you behold him expire calmly, full of hope, and in the belief that all he requires is strength.

Three great divisions may be established in the influences exercised by phlegmasia of the digestive canal on the nervous centres: those of the upper part act on the brain; those of the middle portion on the spinal cord; and those of the lower region, the two extremities of the colon inclusive, on the lower portion of the cord. With moderate irritation of the colon, a man may be gay, whereas, if a like irritation be in the stomach, he never fails to be sorrowful: with colitis only he will even fall into *inartasmus*, and not perceive it: if he becomes anxious and restless, it is because the inflammation has risen upwards; a fact that you may verify by reference to all the histories of epidemic dysenteries. Let us enter into the distinction of the nervous phenomena themselves.

We have seen that the first of these are restlessness and headach. In general, the latter does not continue: after antiphlogistics it scarcely ever continues beyond two days, unless there is predisposition to inflammations of the brain. Follows delirium, which is a modification or higher degree: the disease is then serious. The inflammation of the stomach, of itself, may produce delirium, but the latter is more intense, and more or less furious, if the small intestine is at the same time inflamed. After it comes stupor. These two phenomena often go together, but the delirium without stupor is not the same as that with stupor: the former is unaccompanied by *sordes*, acrid heat of the skin, and prostration: while the latter has the acrid heat, greater dryness of the tongue and throat, more decided suffusion of the eyes, brown tongue, and frequently also startings, and subsultus tendinum, twitchings that may first of all be detected in feeling the patient's pulse, and which prevail in most of the muscles of the body. They are in proportion to the quantity of irritation sustained by the spinal cord, for it is impossible to have acute phlegmasia of the small intestine without the cord becoming affected. You may say, that as the colon also communicates with the cord by nerves, it may cause the same phenomena; but no, when that viscus alone is disordered it does not produce it—the small intestine must also be implicated, or even the upper region of the digestive canal.

Here, then, are two forms of delirium, one ataxic, the other adynamic: the former not necessarily accompanied with symptoms announcing excessive inflammation of the digestive tube, the latter exhibiting them all. What induction are we to draw? why,

that the brain has become more disordered than the digestive canal. Yet think not that this canal is no longer affected: I will explain this; men contract particular irritations of the digestive canal in the gastro-duodenal region, and bear them for a longer or shorter period before they pass into the acute stage: at length they do pass into it: the nervous phenomena suddenly become predominant, and, sometimes in two days, these persons sink before the gastro-enteritis has had time to develop itself and pass through its periods: you open his body, and you are altogether astonished to find, together with the engorgement of the brain, either an intense duodenitis or a considerable gastritis. Another person has pains of the belly, irregular diarrhoea, and meteorismus: fever, with ataxic symptoms, comes on: the death is as prompt as in the former case: you find a phlegmasia, with ulceration and thickening of the end of the ileum, together with a gastritis or gastro-duodenitis. If the febrile state is prolonged, and there is adynamy, *sordes* &c., all these disorders co-exist, but the irritation of the brain has not been so vehement as when the patient sinks in a few days in a state of ataxy.

What follows from this? First, that the ataxic form is a sign of the tendency of the brain to inflammation of its periphery, or, as it is called, arachnitis—an improper expression, for it is the pia mater that is the seat of the phlegmasia, the arachnoid being only secondarily affected. It next follows that the adynamic form includes the cases where the inflammation of the digestive canal predominates over that of the brain, is more extensive, more intense, more particularly established in the small intestine, and where the brain is rather gorged than inflamed. Intoxication gives you an idea of this condition: you behold congestion of the brain proceed in the same manner as congestion of the digestive canal. In asphyxia, and poisoning by carbonic acid, especially by that which is impure and is the product of the combustion of coal and wood, and contains several other gases, you see the same thing. Thus, the three states of intoxication, asphyxia, and adynamic gastro-enteritis, though not completely identical, have much connexion with each other.

The groups of ataxic and adynamic symptoms separately, are as follow:—In the former the patients, after suffering for some time in the digestive canal, particularly in the upper portion of it, have fever, with delirium: in a short time you behold them exalted or furious, with fiery eyes, not much fever, and no dryness or blackness of the tongue. These patients frequently die when you least expect it, and this it is that has caused the name of malignant to be given to this shade of the disease, in opposition to that when it goes on more regu-

larly. If you calm the cerebral irritation, the ataxic group is dispersed, and the gastro-enteritis falls into its ordinary progress, and may even exhibit the adynamic train of symptoms. This train, which announces a general sanguineous congestion of the brain, rather than a tendency to vehement inflammation of its periphery, is manifested either in the commencement or in an advanced stage of the gastro-enteritis. In the beginning it is manifested in full-blooded persons, who have been stimulated, and from the onset have had a large portion of the digestive canal inflamed. The face is of a dull red, livid colour, the tongue brown, the mucus on it blackish, and the teeth encrusted with a soot-like matter. Some have said that this is owing to the patient breathing by the mouth alone; but if this were all there would be merely a dryness that would soon disappear, and not that fuliginous substance, which is diseased mucus, and a sanguinolent oozing that is remarked in the digestive canal as well as in the mouth, the only difference being that in the latter locality they are not dry. At the same time the physiognomy changes and shrinks; the patient is indifferent to everything passing around him, being sunk in stupor and prostration, and only replies briefly when spoken to: he is shaken by convulsive movements, and mutters incessantly in a state of low delirium; whereas, in the ataxic condition, he talks nonsense, and tosses himself about like a lunatic, so much so, that his state might be mistaken for that of an insane person. As the adynamy gets on, the patients, instead of being restless and watching as they were at the onset, become more and more apathetic and prostrated; the eyes sink, become dull, and an impeded state of the respiration supervenes, which is the commencement of the agony, and the prelude of death. All this displays to you a general congestion of the encephalic substance, proceeding in concert with the congestion of the digestive canal, and destruction of the mucous membrane of the stomach, and of itself capable of becoming predominant and carrying off the patient.

Let me not be thought tedious if, after these details, I bring together into a summary the phenomena of acute gastro-enteritis: it is a mighty subject, and involves great pathological considerations.

We have shewn the different progress of inflammation in the three regions of the digestive canal, where we have seen it rise and descend from one to the other, and starting from the middle portion, take either or both directions. We have endeavoured to point out the particular influences under the operation of which this or that progress is pursued. In fact, there is no reason why an inflammation should always proceed in a fixed direction, just as there are no epidemics in which the organs are affected in precisely the same manner, the same order,

and the same succession. This it is that has always rendered classifications extremely difficult so long as it was attempted to characterize diseases according to groups of symptoms, whose number and order varying infinitely, a confusion ensued, which it is our duty to clear away. We insisted on several points, particularly the nervous, ataxic, and adynamic phenomena. Death always occurs by the presence of these phenomena, or rather by the nervous system—inflammation of the digestive canal is not of itself sufficient to kill: here is an instance of it. A robust man, who resides near to me, was kicked in the belly by a horse, and died on the spot. He had the small intestine cut through without the occurrence of any hæmorrhage, the vessels being contused, and, as it were, beaten down. This man died by the nervous system. In fact, when a person does not die from hæmorrhage, from impediments to the circulation of the blood, from asphyxia, from gradual exhaustion of the powers, it is in this manner that he does die: nor to that end is it necessary that the nervous system should be the seat of an excessive congestion, of effusion, hæmorrhage, induration, or solution of continuity. There are inexplicable but undoubted modifications of the nervous system, by which a gastro-enteritis, for instance, that appears to come on under not very unfavourable circumstances, becomes mortal in a very few days after taking on a malignant or ataxic character, either in consequence of the subject of it being ill-disposed and too irritable, or because he has been deprived of the principal vivifiers, pure air and proper food. Whenever a gastro-enteritis, a peripneumony, a fever consequent on a vivid inflammation, attacks an individual who has been confined in prison, it often happens that this individual is as it were struck by lightning: so also of one who has committed excesses and inordinately stimulated his nervous system.

We reduced to two forms the mode in which inflammation of the digestive canal affects the nervous matter; one ataxic, announcing an irritation of the periphery of the brain, approaching to inflammation; the other adynamic, shewing the cerebral congestion proceeding, step by step, with that of the digestive canal. Great varieties of the former exist, all which we have not laid down, but which have acquired for it the names of ataxic, malignant, irregular, &c. In fact, according to the point of predominating inflammation, you have convulsions, delirium, priapism, ejaculations, &c. Leaving this theatre the other day, a person told me he had recently witnessed this latter fact. I myself have seen patients who masturbated during gastro-enteritis, having, no doubt, a predominant phlegmasia of the cerebellum or the spinal marrow.

As the patient necessarily dies from the nervous phenomena under an ataxic or

adynamic form, this event takes place—sooner if the morbid cause is active, if the disease has been improperly combatted, and especially if the individual in whom the gastro-enteritis is developed already bears about him a point of phlegmasia that has disorganized the brain or digestive canal—later, if he is in more favourable circumstances. The first form appears early; the second after five or eight days, the disease passing from the bilious and gastric aspect to the adynamic. Thus a patient may sink at all periods, from the first twenty-four hours up to the tenth, twentieth, or even the hundredth day: there is no certainty whatever on this score. Sometimes these forms lapse into chronicities. When the disease is prolonged to the utmost, the ataxic and adynamic phenomena disappear—and well they may, for it would be impossible to live on with them.

Necroscopy of Acute Gastro-enteritis.—When patients sink in the commencement of gastro-enteritis, a chronic phlegmasia is ordinarily found, upon which an acute one has ensued. The traces of it in the stomach are redness, thickening of the mucous valves or folds; in the duodenum, the same phenomena, with elevations and congeries of smaller glands; in the intestines, redness of different shades, and brown spots of varied extent. In all these localities the mucous membrane may be, at distances, softened, worn, or completely destroyed: even the muscular coat may have disappeared, and this is more especially observed when the disease has been of very long duration. The duodenum is frequently found blackened, thickened, sometimes deeply ulcerated; the liver enlarged, yellow, gorged with blood, projecting beyond the edges of the ribs, or adherent by bands to the serous membrane; the bile disordered, having lost its natural colour and become black, muddy, thick or more clear than usual, and like serosity: these disorders are more particularly met with when the individual has died of gastro-enteritis developed upon a chronic duodenohepatitis: or he may have died of a gastro-enteritis coming on after an ileo-colitis of varied duration. A considerable degree of redness is then discovered in the ileum, its mucous membrane is hypertrophied, its agglomerated mucous follicles deeply ulcerated, and in the cæcum so great is the thickening of its internal membrane, and, indeed, of all its coats, that one might almost fancy it to be cancerous degeneration. At the same time the corresponding ganglions are swollen, red, and greyish, announcing that irritation had existed for a long time in those parts, and had passed into the sub-inflammatory state. This disorder is frequently present while the rest of the canal is red, and only exhibits the incipient characters of acute gastro-enteritis. In these cases, although the individuals have perished with cerebral phenomena,

nothing is found in the brain, and this has led some practitioners, since the frequency of autopsies, to attribute the nervous phenomena to these alterations of the digestive canal, whilst those who have maintained the existence of a particular form of gastrointestinal affection, to which they have given the name of *dothinentery*, have laid these phenomena at the door of the follicular appearances. This is the state of things when patients die in the first period of our sporadic gastro-enteritis, that is, in six, ten, or twelve days; such persons had previously carried about a chronic gastritis, duodenitis, enteritis, or ileo-colitis, had had exaggerated sensibility of the stomach or duodenum, calicis or diarrhœa, and had neglected or stimulated them. A mixture of acute and chronic alterations is then observed; the parts that were not chronically affected are not softened nor diffuent, exhibit no brown or red colour, no fetidness nor meteorismus, and no livid nor slate-coloured aspect.

Thus you have to consider the traces of the acute and of the chronic stages, and you may meet these two forms separately; in fact, a patient may die of acute gastro-enteritis without having previously had the chronic form of that disease. In our military hospitals, where men of impatient spirit, and little accustomed to be stoical in suffering are seen, and others again, in whom sorrow and despair soon produce a disgust of life, some are met with who throw themselves out of the window during the first periods of a gastro-enteritis. It is then observed in the same character that it is possible to produce it withal in the healthy animal, with the mucous membranes red and thickened, but sound in structure, and not at all softened into a jelly, with elevations, injected vessels, and swollen, but not yet diffuent follicles. Similar alterations may be observed in an individual who dies after taking an acid or alkaline poison; with the exception of those places where the substances in question may have produced eschars, where you will find an intense, vinous, uniform, spotted or striated redness, with more or less thickening of the mucous membrane, vehement contraction of the muscular tunic, narrowing of the intestine, no fetid odour, no mucous flux, nor watery or bilious congestions.

On the other hand, a man may die of chronic gastro-enteritis before it has had time to pass to the acute stage, and by itself prove fatal—if for instance, he dies after taking an excessive quantity of spiritous fluids, or a narcotic poison that does not kill by inflaming. In such a man you will find a thickening of the mucous membrane, rugosities, dark-coloured points, brown patches approaching more or less to black, &c. If this individual has had fever, and an acute inflammatory state that has lasted for some time, besides the traces of such a state, you

will see the same parts blacker, more softened, disorganized, and diffuent, the ganglions red and inflamed in the places corresponding to the new inflammation, and thickened, hardened, greyish, or whitish in the points corresponding to the old inflammation. All this is visible when people are willing to see it, and I have demonstrated it a thousand times; for I still practise pathological anatomy in order to make it physiological.

[The immense importance of the questions involved in the study of the gastro-enterites, affords ample excuse for any prolixity that may appear in this portion of the lectures. In fact, when it is considered that on this point hinges the question of the long series of pathological phenomena, that collectively go by the name of fever—whether those phenomena be symptoms of one circumscribed irritative cause, or of an irritation in every locality of the body—it is one worthy of the most patient attention, and on which to be prolix is to be judicious. To occupy the reader therefore, during four or five lectures with the facts and arguments on which M. Broussais' doctrine of fever is founded, will be only doing bare justice to the subject. I have carefully condensed the matter that was absolutely necessary to the development of that doctrine, and have rigorously excluded all that does not strictly bear upon it; and having done this, I call upon the reader to investigate the learned lecturer's propositions with a critically searching, yet impartially judging spirit.—J. M. G.]

—o—

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS,
FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho:*

Session 1834-35.

LECTURE LI.

—

*Vices of Conformation, and Intra-uterine and
Extra-uterine Diseases of the Respiratory
Apparatus.*

GENTLEMEN—The respiratory apparatus includes the nasal fossæ, the glottis, larynx, trachea, bronchiæ, lungs, pleura, and chest.

Some persons would be surprised at my including the nasal fossæ among the organs of the respiratory apparatus, as they are the seat of olfaction, or smell. It is true that they are only accessory to the organs of respiration, and are distinct from the air passages in fishes; but it is to be recollected that the infant respire through them when

sucking, and generally while it sleeps. It would be impossible for the infant to suck for any length of time unless it breathed through the nostrils, and for this reason I include these among the organs of the respiratory apparatus, though they are the seat of smell.

On examining the embryo before the sixth week of uterine gestation, we find that the nose does not exist, and that the nasal fossæ communicate with the mouth. About the sixth or eighth week they become defined. The nose, like all other parts, may be imperfectly developed, or entirely absent (Larue), or its place supplied by a fleshy prolongation, which may descend over the mouth (Garnier, Billard); or the nose may be bifid (V. Laroche, see Billard).

At birth the pituitary, or mucous membrane, is always very red and engorged; it possesses great sensibility, which is proved by the sneezing of infants immediately after birth. This membrane rapidly secretes an abundant mucosity, which is discharged continually from the nose of some infants. The sanguineous congestion, the irritability, and abundant mucous secretion of the nasal mucous membrane, demonstrate its great tendency to inflammation, and explain the frequency of coryza, popularly termed "cold in the head," of new-born and very young infants. This disease is common in spring, autumn, and winter—seasons in which the temperature is most variable, and epidemic catarrhs are common—unless the lying-in chamber be kept warm, and is often induced by the imprudence of nurses in exposing infants to cold, by removing them from the mother to distant parts of the house.

Coryza of new-born infants may be simple, or confined to the nose or throat; or it may be succeeded by the formation of a membraniform concretion throughout the whole extent of the nasal fossæ.

Simple Coryza.—The influence of cold, humid air, coldness of the extremities caused by the urine, when the mother or nurse neglects to change the infant and put on warm, dry clothing; exposure to the heat of a strong fire, or to the light and heat of the sun, are the commonest cause of coryza in infants. The disease is generally caused by the imprudence of parents and nurses, who suddenly remove infants from very warm to cold apartments, or put them to sleep in the latter, or place them in cold or icy baths, on the mistaken grounds of strengthening them; or clothe them too slightly in cold, humid weather, when they are sent into the open air. The experience of every one proves that all causes which suppress transpiration or insensible perspiration, injure the strongest adults, and consequently must affect more severely infants of a tender age. It is known to every physiological physician that the best means of preserving infants and delicate persons

from the diseases which result from changes of temperature, is to accustom the individual insensibly to the open air.

The symptoms are constant sneezing and a discharge of a limpid, yellow or green mucosity from the nostrils. The infant, contrary to its usual habit, sleeps with the mouth open, it sucks with difficulty, as its respiration is impeded, and its snuffling is more or less intense. In some cases the mucosity is so thick as to close up one or both nostrils, and then the deglutition, or function of swallowing, is more or less difficult; the eyes are red and humid, the infant is restless, it cries, and its countenance is expressive of pain and suffering. If it is presented to the breast under these circumstances, its anxiety and sense of suffocation are very much increased; it is instantly compelled to abandon the nipple, because it cannot perform suction, as it can only respire by the mouth, and this is filled by the nipple and milk. It is harassed with hunger, which it cannot satisfy, and soon becomes debilitated and emaciated; but it generally dies before the latter condition is extreme. When this species of catarrh is intense, accompanied by fever, increased in the evening and night, and succeeded or preceded by shiverings, the disease is intense.

In some cases the symptoms advance very rapidly, and a young infant may die in two or three days. This disease may be acute or chronic; it gradually abates and then disappears. It may be complicated with determination of blood to the brain or lungs, with otitis, ophthalmia, quinsey, pulmonary catarrh, &c. The disease is therefore to be considered as most dangerous to young and delicate infants, unless it be properly treated. The danger of the disease is to be estimated according to the severity of the symptoms and rapidity of their progress, the degree of tumefaction of the affected membrane, the abundance and consistence of the mucosity, and the age of the infant.

When the inflammation is slight, the mucus natural and sparing, the respiration and deglutition very slightly affected, the prognosis is favourable.

The disease is not dangerous unless it extend to the throat and chest, when coryza is slight, or terminates by resolution; but by an injudicious treatment, it may end in a chronic form, and then ulceration succeeds, ozena, and caries of the nose, and, finally, gangrene may supervene; terminations which are, however, extremely rare in infants. But when inflammation is intense, the respiration and deglutition greatly impeded, the face red or purplish, the pupils dilated, and cerebral congestion manifest, the prognosis is unfavourable.

In some cases, inflammation of the nostrils is succeeded by pseudo-membranous concretions, which line the whole surface of the nasal fossæ. M. Billard informs us, that in forty infants affected with coryza,

five had false membranes, which were arrested by the larynx, though the mucous membrane was intensely red, thick, and very friable. The formation of this membrane was preceded by the usual symptoms of coryza, and it was bathed with thick mucosities. The infants thus affected rapidly perished; and in one only was the membrane detected in the nostrils during life. In others the mucous membrane was softened, and had undergone ramollissement.

Treatment.—When coryza is recent and slight, it is easily removed by heat and regimen, and medicines are seldom necessary, or, according to M. Capuron, are more injurious than useful. The infant ought to be kept in a warm temperature, its bowels opened, and ass's cow's or goat's milk administered to it. When very young, it cannot suck the breast, as suction is painful, and increases the difficulty of respiration. If the deglutition is very difficult, the powers of life ought to be supported with nutritive clysters, composed of chicken broth, beef tea, mutton broth, &c. When the respiration cannot take place through the nostrils, almond oil may be dropped into them; but, as they are both short and straight in early life, the application of humid vapours is injurious, and only increase the difficulty of respiration. In such cases, nurses perform a most disgusting operation, "sucking the nostrils," acting perhaps on the ancient axiom:

"Nihil turpe aut fœdus, quod humano generi pertinet;"

the free translation of which is, that, "nothing is base or unpleasant, which is capable of relieving humanity." A leech or two may be applied to the root of the nose, or behind each ear, as congestion of the brain or apoplexy is to be dreaded. The excitement of counter-irritation in the intestinal canal by calomel, castor oil, &c. is highly beneficial. The application of a blister to the nape of the neck, between the shoulders, or to the arm, is also useful.

When cerebral congestion is present, leeches behind the ears, purgation, warm baths, and counter-irritants are indispensably necessary. Diaphoretics and diuretics are also extremely useful.

When an adventitious or false membrane is formed in the nasal fossæ, we should employ the same remedies as in croup, when similar membranes are dreaded, or in the course of being developed. In such cases, the insufflation into the nostrils, of calomel, powdered alum mixed with sugar, has been recommended. Care must be taken that the powder used is not passed into the larynx, which would excite coughing, and greatly aggravate the disease and all its complications.

Maternal lactation ought not to be allowed for the reasons already stated.

When coryza is followed by ozena, or ul-

ceration, accompanied by extreme difficulty of respiration and deglutition, and a florid or purplish countenance, with cerebral or pulmonary congestion, it has been designated "malignant snuffles by nurses." In such cases the whole of the treatment already recommended must be employed, and will often succeed in effecting a cure, although the disease may be considered malignant or fatal. Some authors advise issues and setons in the neck; injections of the solution of chlorurets of soda and lime properly diluted and combined with opium, thrown into the nostrils with an ivory or bone syringe; in fact, the usual treatment for *ozena*. Such cases are, however, of very rare occurrence. *Coryza* is generally cured, if treated early, by the means already recommended.

Vices of Conformation and Diseases of the Glottis, Larynx, and Trachea.—The glottis has been found very much contracted, and sometimes obliterated, in new-born infants. Dr. Rossi describes a case of obliteration in a male infant of good external conformation and of ordinary size. The infant moved its lips, and also its limbs in different directions, without having ever breathed, and the heart and arteries beat with the usual force.

In other cases the glottis, larynx, and trachea were filled with tenacious mucosities; and these caused asphyxia in some. In one case the glottis was found straight, and closed by a strong membrane which was produced by the mucous lining of the affected part. The trachea was pervious, but the bronchiæ were obstructed by a cartilaginous substance*.

The glottis, larynx, and trachea are not developed before the second, and sometimes the third month; but are fully formed between the sixth and eighth month. The mucous membrane which lines these parts is of a roseaceous colour, but this is less vivid in the trachea, and is often covered with mucosities at birth. The vices of conformation are smallness of the glottis, epiglottis, larynx, and trachea, which may impede the voice, speech, and song in after life. The rings of the trachea often vary in size.

The mucous membrane of the preceding parts has been highly congested, and even effused blood, during intra-uterine life, as observed by M. Billard, but he never saw it inflamed. He often observed the larynx and trachea filled with mucosities, which in his opinion might impede the establishment of respiration. I have repeatedly seen this state of disease, and so, I presume, has every practical and observant obstetrician. In such cases the cry is stifled, there is a mucous rale or rattle in the throat, the voice is hoarse and often nearly suppressed. The sense of suffocation impels the infant to make strong efforts to relieve itself; it

coughs and expels the mucus from the wind-pipe, but as it does not possess the power of expectoration, it swallows the fluid expelled into the fauces or throat, from which it ought to be extracted by the obstetrician with the finger. Lastly, there may be dark, violaceous spots or petechiæ on the mucous membrane of the trachea and bronchiæ.

Diseases developed after Birth.—The forms of disease which may affect the larynx of the infant at the breast are congestion, inflammation, œdema, ulceration, and gangrene.

Congestion.—The larynx is almost always congested in new-born infants, continues for some time, and gradually disappears. The mucous membrane of the larynx in infants from two to four months, is of a pale rose colour. It is always easily congested, and more especially by all causes that induce asphyxia. It may also be the seat of ecchymosis, as well as the mucous membrane subjacent to it. In some cases the ecchymoses were so marked that it was supposed some violent external violence, such as strangulation, had been applied. In some cases blood was found effused on the larynx and trachea, and was coughed up by the infant, or escaped from its mouth and nostrils.

This is particularly remarked in infants whose skin and cellular tissue was œdematous or hard, and who manifested a general plethora.

Angina—Laryngea-laryngitis.—Inflammation of the larynx is sometimes observed in infants, but is most common at the adult age. The disease is simple erythema, or is succeeded by the formation of a membrane.

The erythematous laryngitis may be slight or intense, and may be accompanied by tumefaction, pain in the part, laborious breathing, a red or purplish hue of the face, ramollissement, and ulceration of the mucous tissue.

The causes of this disease are exposure to cold and moisture; as when the cold wind blows in the face of an infant or child, either on foot or in the nurse's arms; cold applied to the feet, or long continued crying, or the existence of inflammation in some other portion of the mucous membrane of the respiratory organs, as of the nasal fossæ (*coryza*), or trachea (*cynanche trachealis* or *trachitis*).

When the voice of the infant is hoarse, or nearly suppressed, the disease is situated in the upper part of the larynx, or the middle of the tube. The inflammation may be more or less intense, and be accompanied with a secretion of white, transparent, yellowish, or puriform mucosity, and then the respiration is very much impeded, the blood cannot return from the brain, and cerebral congestion may speedily follow.

Laryngitis may be simple, or succeed other inflammations, as *coryza*, *trachitis*

* Journal des Progrès, t. iv.

and bronchitis. The progress of the disease is generally rapid, and often obscure at the commencement; but when it is intense, the characters of the altered voice are sufficiently diagnostic, and if we examine the fauces or throat, we often discover a blush of inflammation, which, in some cases, extends into the œsophagus and larynx. In such complications there may be vomitings of mucosities, secreted by the mucous membrane of the fauces, œsophagus, and larynx; but this symptom is seldom present in simple laryngitis.

In the last form, the infant can seldom suck the nipple, and the pain caused by the movements of the pharynx in the act of deglutition, excites vomiting, and the fluid sometimes regurgitates into the larynx, and may produce suffocation. The result of disease in such cases may be congestion of the brain and lungs. It is important to mention, that when laryngitis is accompanied by an abundant copious secretion, there is danger in placing the infant on the back during repose, as it may be suffocated by the reflux of the mucus into the larynx, unless the infant possess sufficient power to cough it into the fauces, which is seldom the case with new-born or very young infants. I may also observe, that when the glottis is narrow and straight, inflammation may be followed by a degree of tumefaction or œdema, which may prove fatal. I have attended four infants destroyed in this manner. In such cases the face becomes very red, livid, or purplish, the nostrils expand, the respiration is extremely difficult and laborious, often impeded by spasms of the respiratory muscles, a convulsive motion accompanies inspiration, and may be observed in different parts of the body during the expansion of the thorax, and this is often intense in very young infants. This form of disease has been termed *suffocating angina*, and is closely allied to the *spasmodic croup* or *asthma* of infants (Miller, Clarke, North, Marsh, &c.), which I shall immediately describe. M. Billard states that in such cases he often found the cavity of the larynx filled with an abundant thick mucosity, and which caused such obstruction as to induce asphyxia. I may here observe, that laryngitis is a most fatal disease both to adults and infants.

Treatment.—When laryngitis attacks infants at the breast, it will be necessary to advise the mother or nurse to allow it to suck for a very short time, and if possible without avidity. It may be applied frequently, but for a very short time. If the respiration and deglutition are difficult, it is best to suspend the lactation altogether; to apply two or three leeches to the larynx or trachea, the number to be determined by the age and strength of the infant, or below the clavicle. After the leeches fall off, the bleeding is to be encouraged by fomentations with warm water, and it will be carried

to a sufficient extent, when the face becomes pale, the eyes half closed, and the superior and inferior extremities are colder than natural. But unless the breathing is improved and the symptoms diminished, a mustard fomentation, or a thin poultice may be applied over the larynx or upper part of the wind-pipe for five or six minutes; or a blister may be allowed to remain on for two or three hours, but no longer. The infant ought to be bled from the back of the hand or instep, if necessary, and then placed in a warm or tepid bath for five or six minutes; the bowels are then to be opened with two or three grains of calomel, a teaspoonful of castor oil, followed by half an ounce of manna dissolved in milk. When there is cerebral congestion, a leech ought to be applied behind each ear, the infant put in a warm bath, with a napkin or cap wetted with cold water applied to the head, while the body is in the bath, and mustard fomentations, or cataplasms applied for the space of time already mentioned, to the legs and feet, and leeches or cupping employed on the nape of the neck or between the shoulders. These are intended to disgorge the capillary system of the skin, but ought to be applied at some distance from the inflamed part (Sabatier, Ware, Graves, Copeland, &c.), or over it, according to the general opinion. I agree with the authors first named; and have often observed that leeches did harm when applied over a superficially inflamed part. Thus, if applied on the inflamed skin they increase the quantity of blood in the subjacent part, a fact well exemplified by Dr. Loudon, of Leamington, who applied a leech or two every second night to the mammae in amenorrhœa, and caused the breasts to enlarge to an immense size. Here I must refer to my observations on infantile therapeutics, for an account of the cautions necessary in employing leeching, general bleeding, cupping, blistering, and counter-irritation in diseases of infants.

Home, Crawford, and others, have strongly advised emetics of ipecacuan or antimonial wine, or of the preparations of squills in trachitis or croup of infants, on the grounds of exciting a diversion or counter-irritation, and facilitating the expulsion of the mucosities or false membranes from the larynx, trachea, bronchiæ, and remaining air-passages; and others prefer purgative clysters, the foot bath, fomentations, and blisters to the chest or between the shoulders. There are some, and I am of the number, who order the face, nape of the neck, dorsal spine, and front of the chest, to be rubbed with camphorated liniment and opium, or with a stimulating liniment, with a view of modifying the spasmodic action of the respiration; and many of you have witnessed the beneficial results of this practice, at St. John's Hospital, the Free Hospital, and the Western Dispensary, in hooping cough and spasmodic croup. You have repeatedly

heard mothers requesting the liniment in preference to the antispasmodics prescribed for internal use; and these individuals have almost invariably declared that the hooping ceased, or was very much diminished, after the frictions with the liniment. When there is much spasm excited by respiration, frictions on the chest are extremely efficacious. Large doses of tartarized antimony are contra-indicated when infants suffer from gastro-enteritis. A single emetic of it, or any other irritating medicine, is in such cases injurious.

Others advise hydrocyanic acid, combined with the compound tincture of camphor, and liquor colchici, in doses suited to the age and strength of the infant. If we analyse this plan of treatment, we shall find that we influence the external respiratory nerves, while we use antiphlogistic means to abate the local inflammation.

We must always recollect that the tendency of laryngitis or trachitis in infants or adults is to spread over a part or the whole of the air-passages, to excite pulmonary congestion or pneumonia, and also cerebral congestion, which is often succeeded by effusion or hydrocephalus, and hence the antiphlogistic treatment as already described is indispensably necessary. When the patient possesses reason, and will follow advice, the vapours of ether, vinegar and water, camphor, &c. are placed near the mouth or nostrils for inhalation. Dr. Baillie very much doubted the efficacy of blood-letting in acute laryngitis of adults, and Dr. Armstrong followed it with the use of colchicum, which has a remarkable power of subduing the action of the heart, and inducing general relations. (For a most instructive lecture on this medicine by my colleague, Dr. Epps, see my Journal for 1834, vol. vi).

When all means fail, and suffocation is threatened, the operation of tracheotomy or laryngotomy is required. A new method of performing this operation was lately proposed by my friend Sir James Murray of Dublin, and that is, by making an incision on raising the integuments by pinching them, and making an elliptical opening. The next step is to raise one or two rings of the trachea with a tenaculum, and make a similar opening through them. By adopting this plan, all inconvenience caused by the flow of blood from the wounded parts will be avoided. (See Murray on Heat, and Humidity, &c. 1829; and Carmichael in Dublin Medical Journal, 1833). Mr. Hunter was the first who proposed laryngotomy or tracheotomy in croup. For a farther account of the modes of performing the operation, I must refer you to the standard works on surgery.

When the disease becomes chronic, blisters and antimonial ointments are applied to the front or back of the neck, the bowels regulated, the general health improved by the use of tonics, mercurial alteratives, &c. and the body, but especially the neck, kept

warm in cold weather, by flannel, silk, or fur, worn around it,

Ulceration of the larynx is a rare disease in infants, though occasionally met with in adults, and may end in phthisis termed laryngeal, which may and will often defy all methods of treatment except tracheotomy. (See Murray and Carmichael's cases in the works already cited).

Angina with Alteration of Secretion—Cynanche Trachealis—Diphtheritis—Trachitis—Croup.—This disease is an inflammation of the larynx and trachea, which may extend into the bronchial tubes, and be followed by the formation of an adventitious or false membrane.

The disease comes on suddenly, and is accompanied by a short dry cough, a crowing respiration like the sound made by a cock, or as of air passed through a metallic tube; the breathing speedily becomes laborious or difficult, and the infant is feverish. The causes are exposure to cold, and the attack is confined to infants and children from the age of one to thirteen years. The disease is endemic and most common in low, moist, and cold situations, and also bleak situations, as on the sea shore. It is sometimes epidemic; and was at one time supposed to be contagious. It is most frequent in winter, spring, and autumn, when the vicissitudes of the weather are most remarkable. As the disease advances, the respiration becomes difficult, the face, head, and lungs congested, speech suppressed and suffocation imminent. When the symptoms are urgent, a mucosity or layer of lymph is secreted, a false membrane forms and acquires different degrees of thickness, and sometimes filling up the larynx, trachea, and bronchiæ. The disease often terminates fatally in twenty-four or thirty-six hours, though it may assume a chronic form, and continue for five, six, or more days.

On opening the body after death, we usually find manifest signs of inflammation of the larynx, trachea, and upper part of the bronchiæ. The mucous membrane is tumefied and red, though in some cases it is of the ordinary colour, when the disorder was spasmodic; but in most cases there is an adventitious membrane lining or obstructing the whole of the inflamed parts. When the disease terminates suddenly, the adventitious membrane is usually confined to the larynx or trachea; it is either moulded into a tubular form, or appears in detached portions mixed with mucus or effused albumen. It is occasionally separated from the mucous tissue by a viscid or puriform fluid; and at other times adheres closely to the subjacent tissue. Lastly, cases have been observed in which the mucous membrane is merely covered with a viscid fluid, or with pus, and still death took place as rapidly as in those instances in which the false membranes existed (Guersent). The term *false croup* has been applied to this form of the disease.

Treatment.—The indications of treatment are to remove inflammation of the laryngo-tracheal mucous membrane, by sanguineous evacuations, both local and general, leeches, cupping, by purgation, diaphoretics, blisters, sinapisms, or those means which were recommended for the cure of ordinary laryngo-tracheal inflammation. Emetics are given in croup, and often cause the expulsion of the adventitious membrane. The warm bath, followed by leeches, blisters, or mustard fomentations to the larynx and inferior extremities; and when there is cerebral congestion, and danger of meningitis, or hydrocephalus, leeches ought to be applied behind the ears, and the rest of the treatment advised for these morbid states, employed. The false membrane is sometimes expelled by vomiting, or by the alvine dejections; but in other cases it cannot be dislodged, and causes suffocation.

When the remedies now advised are actively employed, we should exhibit calomel alone, or with an appropriate dose of antimonial or James's powder every hour, and it is seldom necessary to urge the dose to more than twenty or forty grains. Dr. Hamilton has administered nearly twenty times this quantity.

It is the opinion of M. Bretonneau and Dr. McKenzie, that the effusion of albumen commences on the soft palate and fauces, and they recommend alum in powder, or in solution, as an application to the affected part. The one may be blown into the throat, and the other applied with the top of a quill.

Mercurial frictions are highly useful, as recommended in laryngitis.

It is important to inform the young practitioner, that sloughing of the cheek and jaws may result from mercurial salivation; but this is a comparatively rare occurrence. It is, however, extremely difficult to affect children with mercury, and the cases alluded to are exceptions to the rule. When all remedies fail to arrest the disease, and when suffocation is threatened, laryngotomy or tracheotomy should be performed. M. Bretonneau states that he has removed the false membrane through the artificial opening, with a forceps; and when he could not accomplish this, on account of the fixation of it, or its descent into the trachea and bronchiæ, he proposes to pass nitrate of silver into the opening, and apply it to the membrane. Perhaps the inhalation of iodine might promote absorption, but it would be difficult to employ it in children.

The sulphate of copper has been strongly recommended by some German writers in repeated doses, but some of the cases in which it was employed were not croup.

Angina Œdematosa.—We often see infants and occasionally adults, apparently affected with angina-laryngea, trachitis or croup, who die, and on dissection present the sides of the glottis œdematous, and in close con-

tact. The symptoms are extremely obscure, and the suddenness of the disease, accompanied by extreme difficulty of respiration, are the chief signs. The disease often succeeds general anasarca, the voice is œgophonous, or resembles that of a goat.

When adults are affected they complain as if something had got into the glottis, the inspiration is difficult, the expiration easy. In some cases the disease is slight, and the patient supposes he has swallowed a fish bone, or a pin, but the real cause is the disease in question. I once attended a baker, who imagined that the cause of the disease was a piece of wood which he swallowed; and women generally think they have swallowed a pin. The effects of œdema are pulmonary and cerebral congestion.

Treatment.—The remedies for laryngitis, trachitis, or croup, are to be employed for the removal of this disease. If these fail—and this is the usual result—laryngotomy is to be immediately performed in the manner recommended by Sir James Murray, which will scarcely require a tube, which is a certain source of irritation. Counter-irritation, by means of blisters, antimonial ointment, issues and setons in the neck, are also useful, and materially contribute to a cure. I need scarcely state that purgation and attention to the general health are necessary.

According to my experience, œdema of the glottis in infants or adults generally proves fatal, though I have often known exceptions in cases of adults.

There is another disorder which is referable to the glottis, larynx, and trachea, or wind-pipe, which demands our serious consideration before we describe the diseases of the bronchiæ or chest, and that is spasmodic croup, or asthma of infants.

Spasmodic Croup, or Asthma of Infants.—This is termed “a peculiar species of convulsion in infants,” by Dr. John Clarke; and is also described by Dr. Cheyne in his work on Hydrocephalus. The disorder consists in crowing inspiration, with purple complexion, not followed by cough; the muscles are rigid, the thumbs are clenched on the palm of the hand, the extremities are œdematous, livid and swollen, and general convulsions supervene. It has proved fatal in several cases.

The disorder has frequently occurred during sleep, the respiration becomes laborious or difficult, the face is purplish, and death is caused by asphyxia. One of the best accounts of this affection has been lately given by Dr. Marsh, of Dublin. He has termed it, “A peculiar convulsive disease affecting young children, which may be termed spasm of the glottis.” This affection was called spasmodic asthma of infants by Miller and Parr.

Treatment.—The same treatment as in laryngitis, trachitis, and croup is advisable. Dr. Marsh ascribes the disease to irritation or congestion, at the origin of the pneumo-

gastric or eighth pair of nerves. It is caused by an affection of the muscles, and the treatment consists in improving the general health.

Dr. Marsh contends the disorder is purely spasmodic. Anodyne or stimulating liniments applied to the face, cervical and dorsal spine, as in whooping-cough—in general afford relief. During the paroxysm, bleeding, leeching, warm bathing, and purgation, are necessary. Change of air and diet are strongly recommended.

—o—

Some Account of the Bronchocele or Goitre of Nipal, and the Cis-and Trans-Himalayan Regions. By Mr. M. J. BRAMLEY.

No disease, perhaps, is so extensively distributed over the mountainous countries of Asia as Bronchocele; for it extends from the frontiers of Assam, (27 degs. N. L. 91 degs. E. L.) through Bijnee, Cooch, Bahar, Rungpore, Dinayepore, Purnea, Tirhoot, and Betiah, along the northern boundary of Oude in Gorruckpore, Barraitch, Piliebeat, on the confines of Rohilkund to Hurdewar, (30 degs. N. L. 78 degs. 25 E. L.) at Yarkund, in the tract between the great wall and Zehol, in the Tibetan and the Mongolian districts, and in those round Lake Baikal, and in that of Kirensk on the Lena.

The valley of Nipal or Nepaul is an extensive tract in 27 degs. N. L., elevated at least 4500 feet above the level of the sea, lying at the southern base of the eastern division of the Himalaya range, between that and the kingdom of Oude, with a diameter of about 16 miles.

Though broken into numberless irregularities, its surface is most extensively cultivated. It possesses three cities. Kathmandu, Bhatgang, and Patan, and 226 towns and villages. The number of houses in the valley is calculated, according to a recent census, at 41,798, of which the cities contain 21,116, in the following ratios, Kathmandu, 10,767; Bhatgang, 4700; and Patan, 5659. The population of the valley deduced from these data, and allowing seven souls to each house, would amount to 229,586, which is believed to be below the real number.

Though bronchocele is frequent among the whole of this population, it is in certain towns and districts more prevalent than in others. The lowest rate among the inhabitants of the cities was $3\frac{1}{4}$ per cent. for Kathmandu, and 4 per cent. for Bhatgang and Patan. According to calculations made of twelve of the small towns and villages, the average proportion of the disease was rather under 11 per cent.—which, from subsequent inquiries, Mr. Bramley is led to regard as representing the average proportion of the disease among the whole population,

In some villages in the neighbouring mountains, and on the borders of the valley, elevated from 500 to 2000 feet above the level of the valley, the disease is still more prevalent. At Phirphen and Mata Pirtha it was at the rate of 15, at Chitlong 40 per cent.; and at a small village named Carphu, situate on the crest of a mountain, of 53 inhabitants, 48 were affected with the disease, giving a prevalence equivalent to 90 per cent. These facts, combined with the statement, that the author has witnessed the disease in families who habitually reside on or near the summits of mountains not less than 7000 feet above the level of the sea, he employs to disprove the inferences drawn by Saussure, Foderé, and Georget, that the disease is peculiar to the lower valleys, and disappears as we ascend.

It is to be observed, on the other hand, that in certain localities the disease is almost unknown, though it may be extremely prevalent in the neighbourhood. Thus in the town of Sanchu, situate on an eminence, and surrounded by a luxuriant forest, which rises from a range of hills, by which it is bounded before and laterally, among a population of 3000, 600 persons were examined without presenting a trace of the disease, and Mr. Bramley was informed that not above twelve persons were affected with it. At Loovhu also, a town situate on an open plain, and surrounded by cultivated grain fields, not more than 2 per cent. of the inhabitants were affected.

In India, the endemic prevalence of bronchocele first begins to betray itself in Hindostan. It appears on the left bank of the great Gundük river among the inhabitants of the villages, sometimes very generally, in other instances very scantily. In proportion as the traveller approaches the foot of the Nipal mountains, the disease becomes more frequent; and in this district it is calculated by Captain Turner, that it affects one sixth of the whole population, and in the tract denominated the Terria or Terriani, especially adjoining to the great forest (Bhabar), scarcely an individual is exempt from the disorder. Some idea of the extent to which it prevails may be formed by the following tabular statement of the number of the population of three villages in the neighbourhood of Betiah, 50 miles from the foot of the hills.

<i>Names of the villages.</i>	<i>No. of inhabitants.</i>	<i>No. with Goitre.</i>	<i>No. without Goitre.</i>
Chouby	234	65	169
Maha-deo	236	103	133
Lal-Serai	177	65	112
	647	233	414

Thus in a population of 647 persons, more than one third were bronchoceleic; and it may be added, that in the first two villages, 14 children under ten years of age, and in the third village, 2 children under that age

were affected. Even the lower animals are often found with bronchocelic enlargements.

As to its comparative prevalence among the two sexes, the reports of the towns of Handigang and Deopatan may be conveniently employed.

Report of the Town of Handigang.

	Witht. Goitre.	With Goitre.	Total counted.
Men	325	29	354
Women	340	31	371
Boys	169	3	172
Girls	145	2	147
	979	65	1044

Males to Females, 32 to 33. Per centage on whole 6 $\frac{1}{2}$.

Report of the Town of Deopatan.

Inhabitants.	Witht. Goitre.	With Goitre.	Total counted.
Men	474	34	508
Women	411	38	449
Boys	218	5	223
Girls	296	6	275
	1372	83	1455

Males to Females, 39 to 41. Per centage on whole 5 $\frac{1}{2}$.

It thence results that in the town of Handigang, the proportion of bronchocele women to men is 33 to 32, and in that of Deopatan 41 to 39, showing a slight preponderance in the number of bronchocelic females. It is to be farther observed, that in men the affection is often partial, and so inconsiderable as to escape general or cursory observation, yet that when inspected, it often turns out that individuals who say they have no *goitre*, are found to present palpable though slight enlargement of the thyroid gland.

No period of life is exempt from its attacks; and both children and the lower animals may come into the world with *goitre* in Nipal. During the residence of Mr. Bramley, a kid was born with a *goitre* as large as its head; and not only lambs are born bronchocelic, but puppies bred from English dogs become bronchocelic at a month old.

As to the rate at which it respectively affects children and adults, of 124 bronchocelic males, fifteen were boys under ten years of age, six of these were under six years of age. Of 140 bronchocelic females, fifteen were under ten years, and of these three were under four. In these children the tumours were large enough to attract observation. The statement made by authors, that the age of adolescence is the most favourable period for the development of bronchocele is in general terms confirmed by the observation of Mr. Bramley.

The author distinguishes the tumour, like the generality of writers, into three kinds. 1st, the cellular or cystiform, consisting of an aggregation of cysts; 2d, the vascular or pulsating; and 3d, the lymphatic or glandular.

On the subject of the *causes* of bronchocele, we find an inquiry into the influence of the water of the countries in which it is prevalent, the diet of the inhabitants, the mode of living, the atmospheric changes, and meteorological vicissitudes.

From chemical examination of seven specimens of Nipal water by Mr. Prinsep, it appears that these contain no ingredients, saline or earthy, in sufficient quantity to account for the origin of such a disease.

Mr. Bramley then enters into a sufficiently detailed view of the usual diet of the different Nipalese, Himalayan, and Tibetan tribes, and arrives at the general conclusion, that there is no ground to attribute the prevalence of bronchocele to any particular species of diet.

From a similar review of the atmospheric and meteorological characters of the climate of Nipal and the Himalayan regions, it appears to be equally difficult to discover any connexion between the prevalence of bronchocele and the nature of the climate. The climate of Nipal, indeed, as that of the sub-Himalayan districts, seems to be very similar to that of the mild or colder European countries, with this exception, that in the lower regions it is rather warm, while in the upper it may be absolutely cold, so that a few hours' walk may often conduct the traveller from tropical heat to intense cold. The only district positively injurious to the functions of the animal frame, and unfavourable to human life, is that of Teriani, already mentioned as contiguous to the great forest called *Bhabher*; and here the soil and atmosphere are merely miasmatic, or what is now denominated malarial, that is to say, productive of ague and jungle fever, and all their accompaniments; and in those in whom it does not produce miasmatic fever, it betrays its deleterious influence, like that of the Sologne and the maritime Alps in France, or the Maremma in Italy, in stinting the growth of the body, or inducing a species of deranged action of the digestive organs, and the abdominal circulation, and a consequent hypotrophy of the whole frame. Here, indeed, bronchocele is extremely prevalent; but, while the disease is not in the same degree prevalent in districts which are equally miasmatic, it is very abundant in situations where no very decided proof of miasmatic air exists.

In short, while Mr. Bramley admits that the etiology of bronchocele is involved in inexplicable difficulties, that no satisfactory theory has been yet proposed, and, above all, that its prevalence under every species and variety of climate shows that it is peculiar to none, he suggests the following general circumstances as concurrently likely to produce the disease.

In the *first* place, since the higher classes are less liable than the inferior, the inhabitants of the towns less generally attacked

than those of the country, or, in other words those who, in the pursuit of their daily duties, are less exposed to the weather than those who are most, are least liable to the disease—he infers that a powerful exciting cause is the frequent or habitual exposure of the neck especially to the vicissitudes of the weather. The natives of the east always have the neck uncovered; and though this practice be not only not injurious, but requisite in the less elevated and warmer countries on the coasts of India, it may become capable of inducing glandular enlargement in the more elevated regions, where the atmospheric temperature is not only lower, but where, from the vicinity of mountain ridges, currents of cold air must be and are of frequent occurrence.

Secondly, notwithstanding this evidence of the general influence of the atmosphere in Nipal, in inducing bronchocele, Mr. Bramley infers that there is in the territory of Nipal and similar places, something in the locality capable of exciting the disease into action. Thus foreigners who come thither to reside, as the Sepaihees (*vuigo* Sepoys) and servants of the Residency, may be, and are, occasionally attacked; and the most prompt method of arresting the progress of the disorder thus induced, is to remove immediately from the locality.

In the third place, bronchocele, Mr. Bramley reminds his readers, is always more prevalent in mountainous districts or their neighbourhood than elsewhere.

Though we give these arguments arranged according to the mode nearly in which they are given by the author, we must nevertheless express our doubt whether all of them be not referable to the same head, of exposure of the neck in a climate liable to extreme vicissitudes, and violent currents of cold wind in persons otherwise accustomed to considerable external warmth. Even this view, however, is embarrassed with difficulties; and it does not enable us to understand why brute animals should become bronchocele.

In conducting the treatment of this epidemic malady, Mr. Bramley proceeded much upon the principle of its being a local disorder, and little dependent on constitutional ailment.

With this view he began first by ordering the application of a bandage or neckcloth over the tumour, upon the twofold principle of protecting the gland from atmospheric vicissitudes, and the injurious impressions of the cold air, and applying pressure so as either to prevent further increase, or excite absorption, and give a uniform support. The next measure was the employment of simple friction; and under the two means now specified several cases appear to have been cured. In the class of cases which resisted, or seemed to resist the influence of these measures, the internal use and the local application of iodine were employed.

For the former purpose the tincture was exhibited in the usual dose; and for the latter, the iodine ointment was diligently rubbed over the tumour.

The result of this mode of treatment was the following. Of 116 cases, the total number treated, including several of the Sepaihees, 57 were discharged cured so completely, as to leave no trace of the existence of the tumour. Fourteen, in whom the disease had nearly disappeared, absented themselves. Thirty-four derived considerable benefit from the use of the remedies, and would in all probability have been cured, or nearly cured, had they been regularly in attendance, and persevered in the use of the measures. In six only partial relief was obtained after a trial of two months; and in five cases chiefly middle-aged persons, in whom the disease was of long duration, perhaps with morbid change of structure, the tumours remained entirely unchanged.—*Edinburgh Med. and Surg. Journal.*

—o—

Contributions to the Pathology of the Nervous System. By E. GEDDINGS, M.D., Professor of Anatomy and Physiology in the University of Maryland.

CASE I.—*Apoplexy—Recovery—Death by a second attack five years afterwards.*

AN aged black woman, about five years previous to her death, was attacked with hemiplegia of the right side, from which she partially recovered in the course of some months. Considerable impairment of the powers of sensation and motion nevertheless remained. She continued to drag her right foot when she walked; her powers of speech were considerably impaired; and when spoken to, her countenance always portrayed the vacant stare and expression of idiocy. No farther particulars of her case could be obtained.

On the 16th of July, 1827, she appeared well as usual, and had in the morning carried one or more buckets of water on her head. In the course of the day, however, without any symptoms premonitory of such an attack, she fell down in a fit of apoplexy, and immediately expired. I was requested by my late friend, Dr. Isaac Wilson, to examine the body, which was done about six o'clock of the same evening, in presence of him, and my friend, Dr. E. Horlbeck. The body was still warm, but presented nothing of interest externally. The cranium was preternaturally thickened, and at some points so much so, as to be with difficulty broken through with the hatchet. The dura mater adhered intimately with the bone, and when separated, its external surface presented a number of small whitish-coloured points, some of them as large as a barley corn, which seemed to consist of organized coagulable lymph, very much consolidated.

Posteriorly, this membrane had its natural thickness and consistence; but that portion which covers the anterior lobes of the brain, was considerably attenuated. The arachnoid was studded over with the same species of organized adventitious points, which were observed on the external surface of the dura mater. The posterior lobes of the cerebrum were of their natural volume and configuration, but the anterior were so much atrophied, as not to present more than one half their natural size. On insinuating my finger between the orbitar plates of the frontal bone and the corresponding portion of the organ, the inferior face of the left anterior lobe was slightly lacerated, and a coagulum of blood, as large as a pullet's egg, escaped. On cutting into the left hemisphere, a large cavity was discovered extending through the whole central point of the hemisphere, and communicating with the corresponding ventricle, which contained several small clots, and a considerable quantity of fluid blood. The walls of the cavity were spongy and flocculent throughout a great part of their extent, and these flocculi were highly vascular. About the centre of the middle lobe was a large cyst, formed by a strong membrane, smooth and uniform upon its internal surface, and which had probably formed around the extravasation which took place at the period of the attack of hemiplegia. The cyst was large enough to contain a common sized hen's egg, and was of a yellowish colour. The portion of the brain which corresponded to its lower surface was of a dark brown colour, and was of an uneven, indurated, fibrous character. The part thus affected was about an inch in breadth, by two or two and a half inches in length. Situated deeply in one of the infarctuosities of the middle lobe of the brain, there was a second cyst of similar dimensions, but possessing all the characters of the one described. The corpus callosum was entirely destroyed on the left side, and the corpus striatum presented a highly vascular flocculent surface. The disorganization extended for some distance into the left crus cerebri. The larger cyst reposed in contact with the middle cerebral artery, which had been ruptured in the original attack, and which now presented a few small points of ossification. The substance of the right hemisphere was considerably indurated, as were also the pons varolii, medulla oblongata, and cerebellum. The floor of the right ventricle, to the extent of one inch and a half, had its lining membrane destroyed, and the adjacent structure seemed to be in a state of ulceration.

This case is interesting, as shewing satisfactorily the steps adopted by nature, in repairing the injury inflicted upon the brain by an extravasation of blood within its substance, and conducting the case to a favourable issue. Reflecting upon the post mortem appearances, and the previous history

of the individual, it is manifest, that at the time at which she became affected with hemiplegia, an extravasation of blood took place in the left hemisphere of the cerebrum. The injury arising from this cause had, however, been in a great measure repaired, or at least counteracted, by the development of a cyst surrounding the coagulum, the effect of which was, to isolate it from that organ, and thus obviate the serious consequences which otherwise would have ensued. The ulcerative process, however, which was excited by the original disease, continued gradually to inflict its ravages upon the adjacent structures, up to the period of the last fatal attack, when in consequence of a considerable artery being opened, either by ulceration, or a rupture of its parietes, they having in the mean time become exceedingly fragile, a sudden extravasation took place in the excavation, and death was the consequence.

Nor is the case without interest in a psychological point of view. The co-existence of extreme atrophy of the anterior lobes of the brain, which, according to the tenets of phrenology, are the seat of the intellectual faculties, and the idiotic character of the individual, speak forcibly in favour of their existence in the relation of cause and effect, and furnish an additional fact, or at least argument, in favour of the correctness of the principles of that doctrine.

CASE II.—*Apoplexy—Death in a few hours after the attack.*

Captain D., aged about 45 or 50, had been for some time affected with ascites, for which he had been successfully treated by my friends, Doctors Samuel and Wm. N. Baker. After partaking of a hearty breakfast, he was attacked suddenly, on board of his vessel, with a fit of apoplexy, in which he was seen by Dr. Wm. N. Baker, who bled him freely, and had him conveyed to the Baltimore Infirmary, where he united with me in the treatment of the case. At the period of his admission, he was in a state of profound insensibility; his respiration laborious and stertorous; his pupils contracted; the skin somewhat hot, and of nearly an equable temperature throughout; his pulse somewhat full and hard, and his tongue drawn to the left side. In this condition we deemed it advisable to abstract more blood, and the temporal artery was accordingly opened in front of the ear, and while the blood was flowing from it, the vein in the arm was again opened and allowed to bleed. With a view of assisting these means, and creating revulsion, ice was applied to the head, and sinapisms to the feet and legs. A stimulating cathartic enema was thrown into the bowels, but as it was immediately returned without effect, it was repeated with no better success by means of O'Biern's rectum tube, which was passed up to a sufficient extent to ensure

projection of the enema into the sigmoid flexure of the colon. As it was suggested that the stomach was probably still distended with the ingesta which had been taken in the morning, and as the individual was incapable of swallowing, we determined to convey a strong solution of sulphate of zinc into the stomach, by means of the stomach tube, passed down the œsophagus, with a common syringe attached. No effect following, a quantity of a saturated solution of common salt was afterwards thrown into the stomach by the same process. But that organ could not be made to respond.

All the means resorted to for the relief of the patient proving ineffectual, he expired few hours after his admission.

On proceeding to the examination of the body, we first directed our attention to the head. When the cranium was opened, the membranes were found considerably injected, and a thin stratum of coagulated blood was found reposing upon the surface of the left hemisphere, immediately beneath its arachnoid covering. The lateral ventricles contained a large quantity of fluid blood mingled with serum. In the plexus choroides of both sides, there were a number of small transparent cysts, some of them as large as a pea. The fourth ventricle was also filled by a fluid of the same character as that which occupied the lateral ventricles—and along the right side of the medulla oblongata, entangled in the radicles of the hypoglossal, pneumogastric, and facial nerves, there was a considerable extravasation of dark coagulated blood. The brain, in other respects, presented nothing remarkable, except that its vessels were somewhat more injected than natural.

On opening the abdomen, which was somewhat prominent, the cause of the dropsy under which the patient had previously laboured, was found to have been a diseased state of the liver. This organ was enlarged to nearly twice its natural dimensions, and was in the condition to which the term *sclerosis* or *scleroma* has been applied. The enlargement and induration was owing in part to hypertrophy of its granules, but chiefly to a similar condition of their interstitial cellular tissue.

In addition to other features of interest presented by this case, not the least is that which has reference to the situation of the extravasation upon the radicles of the nerves of the tongue, lungs, and the stomach. Hence we find, that the tongue was partially paralyzed and drawn to the left side, in consequence of the injury sustained by the nerve which controls the antagonist muscles—that the respiration was embarrassed and stertorous from a similar implication of the radicles of the pneumo-gastric nerve; and finally, that the contractions of the stomach could not be roused, in consequence of the influence of that nerve having been suspended. The extravasation upon the

surface of the brain, as well as that within the ventricles, must likewise have contributed much to the development of the symptoms presented by the patient, but their influence cannot be so directly traced, or so accurately estimated.

CASE III.—*Apoplexy—Sudden Death—Extravasation upon the whole surface of the Brain.*

I was requested by my friend, Dr. Lining, to examine the body of his man servant, who had died suddenly and unexpectedly. His habits had been intemperate, but he had enjoyed good health. On the day preceding his death, he had complained of slight indisposition, for which a cathartic was administered. In a few hours he was found dead.

On opening the cranium, and slitting up the dura mater, the whole of the external surface of the brain was found completely incased in a solid coagulum of blood of considerable thickness, the convolutions being only apparent through it at their most elevated points. The extravasation was most abundant at the base of the organ, where some of the blood was still in a fluid condition. The substance of the brain was healthy, and no other lesion of importance was discovered.

In this case, the extravasation seems to have taken place in consequence of an intense hemorrhagic action of the vessels of the pia mater, as most of the blood was situated beneath the arachnoid membrane, and in the inflexures of the convolutions. No extravasation whatever existed, either within the ventricles or the substance of the organ. Nor could we by the most careful examination, discover a rupture of any of the larger vessels which distribute blood to the brain. Indeed, as the individual was young, and in the prime of life, the arteries still retained their natural elasticity, and had not yet acquired that fragility of tissue, which results from a slow transformation and degeneration of their tunics, and which so often lays the foundation for apoplexy in the more aged. As he had been labouring under a feverish disposition, which may have predisposed the encephalic organs more or less to take on disease, it is probable, from his habits of intemperance, that the hemorrhagic action, and his final death, may have been induced by immoderate alcoholic potations, taken while his system was in a state of preternatural excitement.

CASE IV.—*Apoplexy from Excessive Repletion of the Stomach—Sudden Death—Large Extravasation in the Vicinity of the Fissure of Sylvius.*

A coloured woman, aged about 50, somewhat corpulent, and the mother of several children, after a hearty meal of animal food, peas and rice, tumbled down in a state of insensibility, and immediately expired. I was requested by a medical friend, who

had been called to see the case, to make a post mortem examination. As soon as the cranium was opened, a considerable collection of blood was discovered about the base of the brain, much of which was still in a fluid condition. When the organ was removed from its cavity, a large coagulum was found occupying the fissure of Sylvius, and extending for some distance into the corpus striatum. There was likewise considerable extravasation within the corresponding lateral ventricle. The arteries of the brain were rigid, much dilated, and studded over with numerous points of ossification. The extravasation had taken place in consequence of a rupture of their tunics.

We next proceeded to examine the stomach; and here we had fully revealed the source of the mischief inflicted upon the brain. This organ was impacted with peas, rice, homminy, and other articles of the individual's repast, to a degree to which it would scarcely be possible to believe could be borne without extreme suffering, and an extensive embarrassment of the functions of the whole of the associated organs. Its condition was such as to encroach upon the intestines, compress the aorta, and the vessels given off by it in the epigastric region, press upon the plexus of nerves behind the stomach, and finally force up the diaphragm upon the lungs, so as to interrupt their play, and thus embarrass the function of respiration, thereby interrupting the passage of the blood through them, and consequently impeding its return from the head. Being thus confined on the one hand to the vessels of the brain, by these causes, and driven upon it, on the other, by the pressure sustained by the aorta, which prevented the distribution of the usual quantity of blood to the lower part of the body, it is not to be wondered, when the fragile state of the tunics of the cerebral arteries is considered, that they should have been unable to sustain the onus suddenly thrown upon them, and that they gave way under its influence. —*North American Archives of Med. and Surg. Science*, Nov. 1834.

—o—

Reviews.

A Practical Treatise on Diseases of the Teeth, in which the Origin and Nature of Decay are explained, with the Means of Prevention pointed out. By William Robertson, Esq. Surgeon.

(Continued from page 248.)

WE resume our review of this work, as the author professes to explain the cause of caries of the teeth, or toothach. He first

describes the theories of Hunter, Fox, Bell, and others, who ascribed it to inflammation or gangrene. He urges the following arguments against this conclusion, and they seem to be satisfactory.

"Now there is one simple, and, I think conclusive argument, both against the theory of Mr. Bell, who refers the origin of decay in the teeth to inflammation in their bony structure, and to that of Mr. Fox, who refers it to inflammation of their internal membrane; namely, that as all teeth are furnished with a similar lining membrane, and all are possessed of the same bony structure, they should all (according to these views) be equally subject to the same disease, and no one class of teeth should therefore be more frequently the seat of caries than another; and yet it is a fact universally admitted, and acknowledged by the authors just quoted, that this is not the case.

"Mr. Fox says 'the molares (or large grinding teeth) are more subject to this disease than any other teeth; and that the incisors of the upper jaw are very frequently affected by it, whilst the incisors of the lower jaw very seldom become decayed.'

"Mr. Bell says, 'The teeth most liable to mortification are undoubtedly the dentes sapientiæ; the first molares are also frequently decayed at an early age; so much so that it is often necessary to remove those teeth in consequence of severe suffering from toothach, even before many others of the permanent set are perfected. The cuspidati, both superior and inferior, are comparatively seldom the subjects of disease; and the inferior incisors still more rarely.'

"Mr. Fox has attempted no explanation of these facts, and Mr. Bell has only endeavoured to account for the greater liability to decay in the dentes sapientiæ, or wisdom teeth.

"This probably arises,' he remarks, 'from their being formed at a later period of life than the other teeth, when the constitution is doubtless in a less favourable state for the production of newly formed parts, than during early infancy, when the process of new formation is going on with rapidity in every part of the system.'

"The statement of Mr. Bell, as to the greater liability to decay in the dentes sapientiæ, is perfectly in unison with my own experience; but his attempt to explain it is not satisfactory, and it appears to be inconsistent with other statements made by him. If this liability depended, as Mr. Bell suggests, on their being formed at a later period of life than the other teeth, why should the molar teeth, which are formed in early infancy, and at the period which, according to him, is most favourable to the process of new formation, be so peculiarly disposed to decay? Mr. Bell himself, in describing the various predispositions of the

teeth to caries, has placed the molar teeth next in order to the dentes sapientiae, and Mr. Fox has declared them more subject to this affection than any of the other teeth.

"The same objection which has been made to the proximate cause of decay, as depending on inflammation of the bone, or internal membrane of the tooth, is equally applicable to the supposed exciting causes of the disease; such for instance as hot and cold climates, the taking of food at a high or low degree of temperature, the drinking of strong spiritous and fermented liquors, a disordered state of the stomach, a debilitated constitution, &c. If decay in the teeth were occasioned by any of the above-mentioned causes, all being equally exposed to their operation, they would in like manner be equally the subjects of disease."

We entirely agree with our author that if the alleged causes of caries supposed by the preceding writers were real, there could be no scientific reason why one set of teeth should be more liable to decay than another. Every one knows that the different classes of teeth are liable in different degrees to caries, and our author proposes to explain the cause of caries, by referring it to the external form, configuration, and juxtaposition of the different classes of the teeth. He thus proceeds:—

"This principle I shall now proceed to establish, by passing successively under review the several divisions of the teeth in the order of their liability to decay; and consequently the first that claim our attention are the molares, including the dentes sapientiae, which, from the circumstance of their appearing at a period of life subsequent to the formation of all the other teeth, are frequently considered as a separate class, yet they undoubtedly belong, as shown by their structure, to the molar division of the teeth.

"It has before been admitted that these are more subject to decay than even the molar teeth, but the aptitude arises from a different cause, which will be afterwards explained; for the present I shall include them with the molar teeth, because they are similarly constructed, and on that account are equally liable to decay.

"The molar teeth are much larger than any of the other teeth, their grinding surfaces are broad, and present an irregular cavity bounded by an elevated and uneven ridge. This surface is often intersected with numerous smaller projections or ridges running transversely and in various directions, and corresponding with an equal number of depressions, which constitute so many smaller cavities or deep pits; occasionally a fissure extends across the ridge of the masticating surface, and forms a cavity

in the side of the tooth; in other cases the masticating surface presents three or four prominences around a deep pit in the centre. These indentations are in size, depth, and number infinitely variable, so much so that we rarely meet with two molar teeth exactly alike, with the exception of the corresponding teeth of the same jaw, in which we always find a great similarity of structure.

"The liability to caries in the class of teeth now under our notice (which, as before asserted, are of all the teeth most frequently affected with this disease) will be found exactly to coincide with the irregularity of their surfaces as just described, and particularly with the depth of their indentations. Accordingly the masticating surfaces in which the deepest depressions are met with, are in the great majority of cases the seat of decay, and the first to be affected with it; and the part of these surfaces in which the disease is always found to originate, is the bottom of one or more of the deepest indentations.

"The next class of teeth most liable to decay are the bicuspidates of the upper jaw; their grinding surfaces are much smaller than those of the molar teeth; and consist of an anterior and posterior eminence, with an intermediate chasm open to its extremities, and not, as in the case of the molares, shut in by lateral prominences, thereby producing a hollow cavity or pit; these teeth are not subject to decay in the situation above described, except in occasional instances where these fissures are found to be deep and irregular. On the other hand the bicuspid is principally, and perhaps more than any other, affected with caries on its sides, which from the thickest part of the crown downwards become suddenly flat and contracted, so as to form a neck or groove immediately below that point where it comes in apposition with the contiguous tooth. In this situation we find the disease to commence.

"The next in order of liability to the disease are the incisors of the upper jaw. The surfaces of these teeth are broad, the anterior being smooth and convex, the posterior, on the contrary, being rather uneven and concave; the broadest parts of these teeth are their cutting edges, where they are placed in apposition with each other; from this part, which is thin and smooth, they gradually increase in thickness towards their fangs, so as to represent the form of a wedge; from the same point and in the same direction they diminish still more considerably in width, so that their roots diverge from each other and thereby leave interstices or openings, between them. Decay is never found upon the cutting edges of the incisors, nor is it found upon their plain convex surfaces, excepting where there is some defect in the formation of the enamel, and on their posterior surfaces, we only meet

with it when they are deeply indented, which is rarely the case. The situation where decay takes place in these teeth is at their sides immediately above the points where they unite with each other.

"The incisores of the lower jaw are less subject to decay than any of the other teeth. They are more regular and uniform in their shape, and their fangs are thicker in proportion to their bodies than those of the upper jaw, consequently, they do not present necks and interstices of the same kind. For the same reason the remaining class, the cuspidati, or canine teeth, are comparatively little subject to decay, particularly those of the lower jaw; but there is another reason why the incisors and canine teeth of the lower jaw are less subject to decay than any other teeth, which we shall hereafter point out.

"The next thing to be considered, and the only thing left unnoticed relating to the structure or position of the teeth, as far as this inquiry is concerned, is a peculiarity connected with the *dentes sapientiae* or wisdom teeth, the consideration of which was before purposely deferred. It has been admitted that they are more liable to decay than any of the other teeth, and this liability arises not only from their indented surfaces, which have been before described with the molar teeth, but also from another cause peculiar to themselves. These teeth come at a later period of life than the others; they rarely begin to appear before the age of eighteen or twenty, and often much later than that, whereas the other teeth (comprising twenty-eight in number) are completed, and have taken up their stations at the early age of ten or twelve years, and generally fill up the whole extent of the jaw, so as to leave but little space for the *dentes sapientiae*; the consequence of which is, that when these are prepared to emerge through the gum, their progress is slow on account of their confined situation; when the one half of the surface of the tooth has made its appearance through the gum, the other half continues for a considerable period of time covered, thus forming a recess between the concave and pitted surface of the tooth and the overlapping gum. It is in this situation that decay, which is so frequent in these teeth, is found to commence, and in many instances to have made considerable progress before the whole surface of the tooth has risen above the gum.

"From the review we have just taken of decay in the different classes of the teeth, it will be perceived that in regard to situation, it takes place on the surfaces of the teeth, in excavations formed between them and the projecting gum, in cavities, indentations, and irregularities on the external substance of the tooth itself, and that it occurs at their sides, in their necks, and spaces produced by their formation and relative position; in regard to frequency, that it is in proportion

to the depth of the superficial depressions, and the degree and nature of the lateral projections and interstices.

"This being the case, and decay never being found to take place upon the plain and smooth surface of the tooth, it cannot for a moment be doubted, that the predisposition to caries depends, as I have already proposed to prove, upon the external configuration or conformation of the teeth. It must be equally evident from the partial nature of the disease, and from the insufficiency of all general causes, as before pointed out, to explain this circumstance, that the existing cause of caries must be one whose operation is partial, and which has a peculiar action upon those parts of the teeth which are by their structure predisposed to the disease. The only cause capable of explaining the partial operation and the particular situations of decay, is the corrosive or chemical action of the solid particles of the food which have been retained and undergone a process of putrefaction, or fermentation in the several parts of the teeth best adapted for their reception."

He next applies his explanation to the decay of teeth in pairs, the rare occurrence of caries after the age of fifty, as compared with its frequency in early life, and to the great susceptibility to caries in the teeth of certain families. He commences by stating Mr. Hunter's views, which are of course entitled to recitation.

"In reference to the first of these facts, Mr. Hunter says, 'decay of the teeth does not seem to be so entirely the effect of accident as might be imagined; for it sometimes takes place in them by pairs, in which case we may suppose it owing to an original cause, coming into action at its stated time; the corresponding teeth being in pairs, with respect to the disease, as well as to situation, shape, &c.'

"This opinion,' he states, 'is somewhat strengthened by the fore-teeth in the lower jaw not being so subject to decay as those in the upper, although equally liable to all accidents arising from external influence, which could produce the disease in general. The fore teeth in the lower jaw appear to be less subject to this disease than any of the others; the fore teeth in the upper jaw, and the grinders in both, are of course more frequently affected.'

"It is truly extraordinary that Mr. Hunter, whose attention, as shewn by the passage just quoted, was so particularly drawn to the correspondence in shape and situation of the pairs of teeth which so frequently decay together, should not have immediately perceived that the correspondence of decay was the necessary result of the coincidence of formation. If this had occurred to his mind (and with such strong evidence before

him, it is wonderful that it escaped his penetration), he would not have had recourse to the vague and unsatisfactory supposition of some unknown original cause coming into action at its stated time; but would have seen that the corresponding teeth have the same aptitude for retaining particles of food; that the parts of the teeth where decay has its seat are the deep indentations or angles where the food is deposited; that the disease takes place in both these teeth in precisely the same situations, and that consequently they are similarly liable to decay, because they are similarly constructed.

"The oversight of Mr. Hunter is perhaps the more astonishing, as he was inclined to suspect that, during life, there is some operation going on which produces a change in the diseased part. 'The most common disease,' says he, 'to which the teeth are exposed, is such a decay as would appear to deserve the name of mortification. But there is something more; for the simple death of the part would produce but little effect, as we find that teeth are not subject to putrefaction after death; and therefore I am apt to suspect that, during life, there is some operation going on, which produces a change in the diseased part. It almost always begins externally in a small part of the body of the tooth.'

"We have seen that Mr. Hunter has left the cause of the liability of the teeth to decay in pairs undefined; and the only explanation suggested by Mr. Fox, which is altogether gratuitous and far from satisfactory, is 'that they acquire this disposition to decay from some want of healthy action during their formation.' Mr. Bell explains this fact on the same principle as Mr. Fox, which principle we have before seen him apply with so little success to explain the frequency of decay in the *dentes sapientie*.

"The next fact to be noticed is the rare occurrence of decay in the teeth after the age of fifty, as compared with its frequency in the early periods of life. 'This disease, and its consequences,' says Mr. Hunter, 'seem to be peculiar to youth and middle age; the shedding teeth are as subject to it, if not more so, than those intended to last through life; and we seldom or never see a person whose teeth begin to rot after the age of fifty years. This might be supposed to arise from the disproportion that the number of teeth after fifty bear to them before it; but the number of diseased teeth after fifty do not bear the same proportion.' This statement is also in accordance with my own experience; and although it has not been accounted for by Mr. Hunter, or the other writers on this subject, it can readily be explained on the principle insisted upon in this treatise.

"It has before been shewn that the grinding teeth are most liable to caries in consequence of their deeply-indented surfaces. In

early life, when the teeth appear through the gums, the prominences upon their grinding surfaces are higher, and their depressions consequently deeper, than at a more advanced period; and should the formation of these indentations be calculated to retain particles of food, the operation of decay would immediately commence, and the loss of these teeth in early life would be the result. On the other hand, it may be safely presumed that the surfaces of such teeth as remain sound to the advanced period alluded to by Mr. Hunter, never were deeply indented, or they would not have escaped decay; but having escaped it, they are, in every succeeding stage of life, less and less disposed to the effects of this disease; for we generally find that, at the age of fifty, the surfaces of the teeth are worn down, and become smooth from a long course of mastication, consequently the cause of liability to decay in this situation (which of all others is the most liable in youth) is entirely removed; and when decay does occur, it is principally confined to the sides of the teeth, and is occasioned by a lodgement of food in the interstices produced by a receding of the gums.

"If the doctrine insisted upon by Mr. Bell were correct, the teeth would be more liable to decay at the advanced age above alluded to than during the earlier stages; for at this period a filling up of bone has taken place within the tooth, thereby lessening the internal cavity, and increasing the distance between the external surface of the bone and the centre of circulation. But, as this is not the case, Mr. Bell's notions regarding the primary cause of decay must be fallacious; and moreover, we constantly find decay to commence in the depressions and irregularities of the teeth in situations nearest to, and not the most remote from, the centre of circulation.

"The next fact under this head to be explained, is the great susceptibility to caries in the teeth of particular families; and it is a remarkable circumstance that there is no feature in which the different members of a family bear so striking a resemblance to each other as in the formation of the teeth; this similarity may always be perceived, upon minute observation, when there is nothing particularly conspicuous in the formation or position of the teeth. But when the teeth are of a large size, crowded and irregular from the want of expansion in the jaw, defective in the formation of the enamel, or indeed presenting any other peculiarity, the resemblance which the teeth of children bear to those of one or other of the parents is very obvious; and the similarity is equally great in regard to the indentations and fissures upon the surfaces of the grinding teeth, and also the depressions and necks in the interstices between them. I have likewise found, when a predisposition to caries exist in the teeth of a family, that decay generally com-

mences upon the same teeth, and in similar indentations or interstices in the different individuals of the family; and this circumstance alone is a strong corroboration of the principle which I have insisted upon in the former part of this treatise.

“Mr. Bell particularly alludes to this hereditary predisposition of the teeth to caries, and perfectly agrees with me in describing the facts, but differs entirely in assigning their cause. ‘It often happens,’ says Mr. Bell, ‘that this tendency exists in either the whole or greater part of a family of children, where one of the parents had been similarly affected; and this is true to so great an extent, that I have very commonly seen the same tooth, and even the same part of the tooth, affected in several individuals of the family, and at about the same age. In other instances, where there are many children, amongst whom there exists a distinct division into two portions, some resembling the father and others the mother, in features and constitution, I have observed a corresponding difference in the teeth, both as it regards their form and texture, and their tendency to decay.’

“Here Mr. Bell most explicitly confirms what I have stated, as to the hereditary resemblance and hereditary decay of the teeth; and after having observed this similarity of formation, and that decay commonly begins in the same tooth, and even the same part of the tooth, in several individuals of a family, and at about the same age, he misses the only adequate and satisfactory cause, by overlooking the peculiar formation of that part of the tooth where decay first commences; and in order to account for this hereditary predisposition, he again resorts to his vague and improbable theory of an internal and undefined constitutional cause, occurring during the formation of the teeth, and producing in them a disposition to decay.

“In concluding my notice and explanation of the facts to which our attention has just been directed, and from which Mr. Hunter, Mr. Fox, and Mr. Bell have been led to ascribe the predisposition to caries in particular teeth and families, and at certain periods of life, to ‘a disease arising originally in the tooth itself,’ as Mr. Hunter has indefinitely called it, or to some want of healthy action during its formation, as Mr. Fox and Mr. Bell have supposed; I may further remark, with regard to the cause and primary seat of the disease, which all these writers, on the suppositions above named, have concluded to be one originating in the tooth itself, that Mr. Hunter, who was the earliest writer of any authority on the subject, approached much nearer to the discovery of the origin of the decay, although he has left the nature of it undefined, than either of the other authors, who, principally on the facts and conclusions of Mr. Hunter, have severally proposed a theory of the disease as before

stated; in doing which, however, they have not only deviated farther from the true source of the malady, but in many instances have evidently misunderstood the tendency of Mr Hunter’s observations.”

Our author is by no means complimentary to his opponents, and very clearly informs them of their deficiencies. They are however both distinguished writers, and we shall leave them to fight their own battles. Our author next proceeds to describe the progress of caries.

“Having stated what I consider to be the primary cause of caries of the teeth, and pointed out the situations where decay first begins, I shall now endeavour to describe the progress of the disease through its different stages to that period when toothach is produced. When decay commences upon the surface of a grinding tooth the disease is confined to one or more of its deepest indentations, and may be discovered by a brown discoloration of the part, which discoloration is produced by a chemical action of the food lodging in that situation; and as this action proceeds and increases, the bottom of the indentation becomes black and corroded, and soon afterwards (by the application of a pointed instrument) a small opening may be discovered through the enamel. When the putrid substance has been admitted through this orifice to the softer bone within the enamel, decomposition in this situation proceeds with much greater rapidity, whereas the opening through the enamel increases but little, its texture being better able to resist the effects of the chemical action, on account of its greater density; but when decay has proceeded so far as to make an excavation, by the destruction of a considerable portion of the bone under the enamel, the support being removed, the enamel suddenly breaks in during mastication, and a cavity is laid open which, till this period, was not suspected, in consequence of the smallness of the orifice, and the destruction of the tooth, up to this stage of the disease, being unaccompanied with pain. At this period, or soon afterwards, by the continued operation of the same morbid action, the internal membrane that lines the cavity of the tooth becomes exposed, and consequently inflammation occurs, the pain produced by which is toothach.

“The description of the progress of decay above given will equally apply to the disease in whatever situation it occurs, with this difference, that in the interstices of the teeth it is not so easily detected in its first stages, and is seldom found out before an excavation has been made, and a portion of the enamel is broken off. This is more particularly the case with the molares and bicuspidæ whose adjoining surfaces are deeper (particularly those of the molares), and consequently the

seat of the disease is more concealed from view; whereas the lateral surface of the incisors being thinner, the early stage of caries in them is readily discovered."

There is one fact that Mr. Robertson has forgotten to explain, namely, the cause of caries in the interior of the teeth, and this, according to his own shewing, cannot be accounted for in the manner he has proposed. He must, no doubt, have often seen teeth perfectly sound externally though decayed in the centre.

He next proceeds to point out the practical and important application to which his view leads, by shewing the possibility of preventing the commencement of caries, or by arresting its progress before it has done serious mischief. But he first describes the treatment necessary for the preservation of the temporary teeth, and also the means of ensuring the regularity of those teeth which are intended to last through life. This part is so instructive that we shall quote it freely.

"The temporary teeth, although not so liable to caries as the permanent set, are nevertheless the subjects of decay, particularly the molar teeth. The disease generally commences in the interstices of these teeth, and is commonly attended with inflammation of the periosteum and the gums; when this is the case, relief can be obtained only by removing the carious tooth. It is of great importance to preserve those teeth in a healthy state, and to prevent the necessity of their being extracted before the bicuspidæ, which supply their place, are ready to make their appearance; for should it become necessary to remove them early, the permanent molar teeth, which take their stations immediately behind the temporary set, incline towards the front of the mouth, and encroach on the space allotted for the front permanent teeth.

"The only means of prevention that I should recommend, is the daily application of the tooth-brush, with water only, in order to keep the teeth as clean as possible. This simple treatment will be found, to a considerable extent, a preventive of decay in the temporary teeth, and consequently of much pain and suffering; and, moreover, will be of great service by initiating the child into habits of cleanliness, which will afterwards be of the highest importance for the preservation of the permanent teeth. The period at which the temporary teeth become more particularly an object of attention, is at the age of from five to seven years, when they are to be succeeded by a permanent set, more numerous, proportioned to the increased expansion of the jaws, of a larger size, firmer

texture, and better adapted for the purpose of mastication.

"About the age of three years, when the temporary set of teeth are completed, the form of the jaw is that of a semi-circle, and it is filled up to its whole extent with these teeth, twenty in number—ten in each jaw; namely,

Two central incisores, or cutting teeth,

Two lateral incisores, or cutting teeth,

Two cuspidati, or canine teeth.

Four molares, or grinding teeth.

This part of the maxillary arch increases afterwards very little, if at all. In the course of between two and three years from this time, that is to say, a few months previous to the shedding of the temporary teeth, the two extremities of the jaw having elongated posteriorly to allow room for the first molar teeth of the permanent set. These teeth, from the inattention which is so general in the treatment of the temporary teeth, are liable to be affected with caries at an early period; and when it becomes necessary to remove them, in consequence of acute pain produced by decay, the parents are often astonished when they are informed that these teeth belong to the permanent, and not to the temporary set.

"The jaw continues to elongate in the same direction, so as to admit successively of the second molar teeth and the dentes sapientiæ, thus completing the permanent set; and at this period, the jaw, which at the completion of the temporary set, presented the form of a semi-circle, approaches to that part of an ellipsis, or, in other words, resembles a horse-shoe in shape. According to this arrangement of nature, it will be seen that the room occupied by the twenty temporary teeth is filled with the same number of permanent teeth; but as the teeth of the two successive sets are not respectively equal to one another in size, it will here be necessary to explain how they come to be arranged in the same space. This is of the more importance, as the irregular position of the teeth is one of the principal predisposing causes of caries.

"The incisores and cuspidati of the permanent set are considerably larger than the corresponding teeth of the temporary set; whereas the molar teeth of the temporary set are much larger than the bicuspidæ of the permanent set, which succeed them. And here it is obvious, that the additional room required for the permanent incisores and cuspidati is compensated by the smaller space occupied by the bicuspidæ.

"The formation of the maxillary arch in different individuals is exceedingly various. When we find the jaw sufficiently expanded, and the temporary teeth a little separated from each other, the arrangement of the permanent set may be safely left to nature; but when the jaw is contracted, and the temporary teeth arranged closely together, it becomes

necessary, in order to ensure the regularity of the permanent teeth, that nature should be assisted; and with judicious management, there are but few cases which are not under the control of the operator, by the removal, from time to time, of the temporary teeth, to make room for those of the permanent set which succeed them.

"The shedding of the teeth commences with the central incisors of the lower jaw; sometimes the fangs of these teeth are absorbed, and their crowns fall out spontaneously, that is, when the permanent teeth come up immediately under them. But even when this is the case, the space previously occupied by these teeth may be too narrow to admit of the permanent teeth; and if so, they are forced out of the circle by the contiguous temporary teeth, and stand either obliquely or the one before the other. In order to remedy this defect, it becomes necessary to remove the lateral temporary incisors; and for the same reason, when the lateral permanent incisors make their appearance, the temporary cuspidati must be removed to make room for the lateral permanent incisors.

"When the permanent incisors of the lower jaw appear behind those of the temporary ones, absorption does not take place in the fangs of the temporary teeth, and consequently they remain firm in their sockets; nevertheless they ought to be removed, in order to admit of the permanent teeth coming forwards into place.

"Similar treatment to that above described will be necessary for the regulation of the teeth in the upper jaw. When the temporary incisors and cuspidati have been removed, a considerable period may be allowed to elapse before any further assistance is requisite. In twelve or eighteen months from this time, the fangs of the temporary molar teeth become absorbed, the bicuspidates generally coming up immediately under them, and their crowns drop out of their own accord, or become so loose as to be easily removed; but should the bicuspidates take an irregular direction, either inside or outside of the circle, the temporary tooth must be removed to allow the permanent one to take its place.

"The cuspidati seldom appear before all the temporary teeth have been shed, and the bicuspidates and incisors have been arranged in their respective situations; and these teeth, the bicuspidates and incisors, sixteen in number, frequently fill up the whole of the space previously occupied by the twenty temporary teeth, so as to prevent the cuspidati, particularly those of the upper jaw, from falling into the circle. In this case, the cuspidati occasion great deformity by projecting beyond the range of the other teeth. Unskilful practitioners frequently remove these teeth, in order to remedy the deformity, thereby destroying the symmetry of the

mouth, and sacrificing a class of teeth which, from their strength and durability, are of the greatest importance in after life; whereas the removal of the anterior bicuspidates, which are teeth of much less consequence, because more liable to decay, and the abstraction of which does not interfere with the symmetry of the month, would effect every purpose by allowing the cuspidati to fall into their proper places in the arch of the jaw. The remaining teeth which have yet to appear, are the second molares and the dentes sapientiae, which take their places in due course, and complete the permanent set.

"Before dismissing this part of the subject, I shall point out some of the bad effects which result from inattention to the teeth during that period which is termed the shedding of the teeth. We have before stated that when the teeth are irregular in their arrangement they are more subject to caries, inasmuch as there are situations produced by this irregularity calculated to retain particles of food, which in a well-arranged set of teeth would not be the case; and moreover, that it is scarcely possible to prevent an accumulation of a substance called tartar from taking place on those teeth which stand out of the range, as they escape the friction of the brush during the process of cleaning. The irregularity of the teeth in many instances also occasions very considerable deformity in the appearance of the face; this is more particularly the case when the upper front teeth, instead of closing over the lower ones, shut within them, and consequently give an unnatural projection to the lower part of the face. When one or more of the teeth take this position, it becomes necessary to have recourse to artificial aid, otherwise the defect will be permanent. In order to rectify this deformity, a plate is adapted to the lower range of teeth, and so constructed as to produce pressure upon the irregular ones; by which contrivance the rest of the teeth are prevented from coming in contact with each other, and the whole pressure of the mouth in shutting is thrown upon the irregular teeth, which act against the inclined surface of the plate, and by degrees are moved forwards into their proper situations."

Our author now arrives to consider the means of preventing and curing diseases of the permanent teeth, which every one, medical or non-medical, ought to peruse with attention. He endeavours to prove, but he does not do so in our opinion, that caries is most frequent in early life, for example, from the age of fifteen to twenty. He states—

"In the early periods of life too, the progress of decay is more rapid in effecting the destruction of the teeth, because the interna

cavity of the tooth being larger, and the wall of bone between the cavity and enamel being consequently thinner, the disease has a shorter distance to penetrate before it accomplishes the exposure of the internal membrane; whereas, in the middle and later stages of life, the bony partition becomes considerably thickened, so as to increase the distance between the surface of the tooth and the cavity. It also too often happens, and is another cause of the frequency of caries during the period of youth, that, at this time, when the greatest liability to the disease exists, the precautionary measures for preserving the teeth are the most neglected; and it is only after acute suffering and irremediable mischief have been produced, by the loss of several teeth, that means are adopted for preserving those which remain.

"The first, and one of the most important precautionary measures to be adopted, is that of cleanliness; and I have been the more particular, on a former occasion, in insisting upon the early use of the tooth-brush, not only as the means best calculated for the prevention of decay in the temporary teeth; but in order to establish and confirm those habits of attention so necessary for the preservation of the permanent teeth.

"In order to preserve the teeth from caries it is absolutely necessary that they should be brushed once in twenty-four hours, and so effectually as to remove any portion of food which may have adhered to them. This will prevent the remains of food from suffering decomposition in the situations already described, the putrid matter arising from which has been pointed out as the active agent of destruction; it is better, however, to clean them morning and night; but the strict rules of cleanliness require the use of the brush at the termination of every meal.

"The ablution of the teeth, in many instances is performed in that superficial manner which does little or nothing for the prevention of decay. The operation of the brush is generally confined to the front teeth; and whether confined to these or extended over a larger range, it is almost always applied across their anterior surfaces only; and the irregularities upon the masticating surfaces of the double teeth, and the interstices in which the food is the most liable to lodge, and consequently the most subject to decay, are altogether neglected.

"The most effectual method for removing the particles of food from the interstices of the teeth is to brush them upwards and downwards, and the brush should be firmly applied across the masticating surfaces of the double teeth; and if it were possible by these means to keep the teeth perfectly clean, and to dislodge all the food which is retained in their indentations and interstices before decomposition could take place, it is not improbable that caries would be as seldom

met with in the teeth as in other bones, in which it sometimes takes place indeed, but is a circumstance of rare occurrence. But it must be allowed that, in a vast number of cases, from the deeply indented and irregular structure of the teeth, it is not practicable, by the most rigid attention to the rules of cleanliness, to prevent the decomposition of food in some of the situations already noticed; the consequence of which is that decay must and does ensue; and here it is obvious that another mode of treatment becomes necessary in order to arrest the further progress of the disease.

"I scarcely need remark that the only treatment which can be adopted under these circumstances, for the preservation of the teeth, and the only one which has ever been found effectual, consists in filing away the carious part, or in eradicating the spongy and decayed portion, and subsequently filing the cavity which the disease has produced. But such, unfortunately, is the insidious character of the disease, and so unacquainted are the generality of people with its nature and progress, that application is rarely made for assistance until it is too late to be effectual. This false security, which is so common among mankind, arises from a prevailing prejudice that, as in the other organs of the body, so in the teeth, disease cannot commence without pain. This impression is so generally true, with respect to diseases of most of the internal organs, whose functions, being immediately necessary to life and health, cannot be deranged without uneasiness and suffering, and also to most of the external parts, which are endowed with such extreme sensibility that the slightest and most superficial injury causes acute pain, that it has become a received principle with respect to the diseases of all parts of the system.

"Persons are either ignorant, or do not consider, that the enamel of a tooth is an inorganic substance, and perfectly insensible, and that the bony structure beneath is so void of feeling, that disease may effect the destruction of these parts without pain or suffering. They are further so universally led to believe that decay originates in the internal structure of the tooth, and that the exciting causes operate by inducing some internal morbid process, terminating in inflammation of the membrane or of the bony substance of the organ, that they have never suspected the true cause to be a chemical agent acting upon the external crust and material substance of the tooth itself.

"The consequence of these misconceptions is that the practitioner is hardly ever consulted before pain has been experienced; and, in not a few instances, it is a subject of surprise to the patient when told that the disease is irremediable, and that the only resource is the extraction of the tooth.

"The facts just stated, with regard to the

almost imperceptible approach of caries of the teeth, will, I trust, sufficiently impress on the mind of the reader the necessity of a careful and continual watchfulness over these organs so important to health and comfort, for the purpose of detecting the disease in its first stages, before it has proceeded so far as to produce pain or even tenderness.

"This attention to the teeth should commence at the early age of six or seven years, when the first molar teeth of the permanent set have pierced the gums. As these teeth are very subject to decay soon after they have made their appearance, it therefore becomes the duty of the parents and guardians of the young, to have the teeth regularly inspected, and this examination should take place at least once in every twelve months; and to insure their safety should be continued throughout the future periods of life. If this system were more generally adopted, the necessity of extracting teeth, which so constantly arises, would be of less frequent occurrence, and consequently much pain and inconvenience would be prevented.

"An experienced practitioner will have no difficulty in discovering the first stages of caries; nay, from the first appearance of the teeth through the gums, he will be able to foresee, from their construction, which and what parts of them are predisposed to the disease. The only situations where caries may commence and proceed without detection till it becomes incurable, are the interstices of the double teeth; and even in those situations, in a vast majority of cases, the disease may be detected before much mischief has been produced.

"The object and advantages proposed by the system of constant watchfulness and regular inspection of the teeth now suggested, are to arrest the progress of decay before it has penetrated to the internal cavity of the tooth and exposed its vascular membrane to the influence of foreign bodies; this is accomplished by filing away the carious part, or by eradicating the spongy and decayed portion, and subsequently filling the cavity which the disease has occasioned. For the successful practice, however, of either of these processes, it is evident that we ought to have a clear idea of the object proposed by them.

"The cause of caries being, as we have minutely pointed out, the corrosive action of decayed particles of food, it must be obvious that the method that we propose for preventing the further progress of the disease, must consist in remedying the peculiarity of structure which led to it. If, for example, decay takes place in one of the deepest indentations of the masticating surface of a grinding tooth, in order to arrest its progress, the decayed part is removed and the cavity stopped up; consequently a future lodgement of food is prevented."

Here we shall pause for the present, and conclude our remarks in a future number.

The New London Dispensatory, containing a Translation of the Pharmacopœia Londinensis, with the Medical, Natural, and Pharmaceutical History of the Articles in the Materia Medica; also, a Translation of Magendie's Formulary for the Preparation and Employment of several New Remedies.
By Thomas Cox, M.D., and Charles Wilson Gregory, M.D. Svo. pp. 577.
London: E. Cox. 1835.

THIS is an accurate English version of the London Pharmacopœia, to which is appended a translation of M. Magendie's Formulary for the preparation and employment of several new remedies, from the eighth edition, published in Paris, 1835. The authors have acted wisely in combining both works, as the latter contains all modern discoveries, while the former is no credit to any country. It does not contain a single new medicine, but abounds with a pile of trash which nobody employs. In saying this, we are aware that the *magnates* of the college have been talking about publishing a new edition of their Pharmacopœia; but as a few of them are in very extensive practice, and most of them in the habit of prescribing placebos, they are totally incompetent to execute the work which the legislature has most unfortunately empowered them to revise. The consequence is, that after seven years' squabbling about the new edition, and after the premeditated insult of excluding the members illegally designated licentiates, their worship have been compelled to confide the arrangement of their new edition to a gentleman, of great talent as a chemist, but who is not one of their body, either fellow or member, and who justly reprobated their last impression, as well he might, in the roundest terms. They have, however, no qualms about the

Sic vos non nobis,
and the forthcoming edition will be chemically correct; but as to its therapeutical excellence, it remains to be estimated.

We cannot conceive why there could not be an annual or triennial edition of the British Pharmacopœias, and all new medicines, after satisfactory trials, included.

Every one who compounds prescriptions, and every one engaged in medical practice, who wishes to follow the London Pharmacopœia, and more especially the inestimable work of M. Magendie, is now afforded the

opportunity on very moderate terms. The translators have executed their respective tasks with great fidelity and ability. The defects of the first are well supplied by the second work; and the combination of both is judicious and valuable. What a contrast between the English and French productions! but *jam satis*. Nevertheless, our brethren in the aggregate, for us, at the bedside; for after all, there are few Magdemies.

—o—

The London Medical

AND

Surgical Journal.

Saturday, October 17th, 1835.

—

NEW ARRANGEMENTS FOR THE FUTURE CONDUCT OF THIS JOURNAL.

THE very rapid increase in the sale of this journal within the last few months, has induced us to enter into arrangements attended with so great an expense that they would have been imprudent under circumstances less auspicious.

It has always been our ambition to raise the London Medical and Surgical Journal to the first rank among medical hebdomadals; and this object we have endeavoured to attain, not by the violent and extravagant declamation in which some of our contemporaries have indulged, nor by the low malevolence and dastardly attacks on private character, which have brought others into general and deserved contempt, but by a fearless exposition of principles which we hold in common with all honourable and enlightened men in the profession—by impartial and elaborate criticism—and by unwearied assiduity in following the progress of medical science, and recording its improvements in our own and other countries. After encountering a degree of opposition which showed how much was feared from our success, and surmounting obstacles which might have discouraged the most sanguine, we are now fast approaching to the consummation of our wishes. This journal has already acquired a stronger hold on public opinion than any of its weekly

contemporaries; its circulation is very nearly equal to that of the longest established among them, and, if it go on increasing in its present ratio, it will very soon far exceed that of any medical journal ever published. Under these circumstances, expense becomes a subordinate consideration; accordingly we have resolved to consult nothing but the improvement of the journal, and have just concluded arrangements which will bring some of the highest professional talent in the kingdom to bear on its progress. We have moreover engaged eminent artists, whose labours will afford the work every advantage of graphic illustration; we may refer to what has already been done in this way as an earnest of what may be expected. Our engravings have actually excited emulation in the Green Lizard, which has followed us "*non passibus æquis*," by a truly ludicrous exhibition of certain stampings from wooden blocks—we rather think the heads of some of the chief contributors must have been put in requisition, to say nothing of that "*triste lignum*," the editorial scone itself.

Paulo majora canamus. Aware of the importance of lectures to a weekly journal, we have spared no exertions to supply our readers with the best that could be obtained on each subject. We have much pleasure in announcing that Dr. Fletcher's unequalled course on physiology will be resumed in January next. A course of lectures on obstetrics will be speedily commenced by Dr. Ryan, which will be fuller and more comprehensive than any hitherto published on that subject; it will also be illustrated by a series of fine engravings on copper. We expect soon to bring our negotiations with some of the Parisian lecturers to a satisfactory conclusion, nor are we without a hope that we may ere long be able to present our readers with a German course—to this, however, we cannot at present pledge ourselves.

With respect to those departments which are more under our own control, it is hoped that the accession of talent which this journal has received, will immediately become perceptible.

The reviews of English works on physic will be written by gentlemen whose extensive practice, and long connexion with the medical literature of this country, eminently qualify them for the task. Publications on surgery will be criticised by distinguished members of that branch of the profession. Foreign works will be reviewed by gentlemen familiar with the peculiarities of continental practice, and intimately conversant with the French, German, and Italian languages. Finally, the department of foreign medicine, and that of hospital reports, will be no less efficiently filled by gentlemen in whose intelligence and accuracy we can place entire confidence.

With regard to original communications, our pages will always be accessible to such as possess sufficient interest, and we may add, that in future, illustrative drawings transmitted along with any paper, will be accurately engraved and inserted in the journal.

Such are the grounds on which we are conscious of deserving, and certain of obtaining, the continued support of the profession. Our course has been an adventurous one, but it has been crowned with success equal to our own most sanguine expectations.

"Serpit humi tutus nimium timidusque procellæ!"

—o—

PROFESSOR TIEDEMANN IN LONDON.

—

PROFESSOR TIEDEMANN, of Heidelberg, is at present in London. This distinguished foreigner will no doubt be gratified at viewing the extensive materials collected in the Museum of the College of Surgeons, for the illustration of those branches of science to which he has himself been an eminent contributor. And he will probably expect to find the guardians of this invaluable mu-

seum not only deeply informed on the subjects to which its contents have reference, but zealous to diffuse such information through the medical community. He will be disappointed; these dog-in-a-manger rogues, who have stolen John Hunter's museum, take good care to keep the profession excluded from all effectual access to it, although they are themselves so careless about it that the greater part of them have not the most distant idea of what it contains.

Ah! these curs! And it is to them and to their analogues in Pall Mall, that the medical philosophers of other countries are introduced as to the "heads of the profession" in this. Is it wonderful that those philosophers go away with the firm conviction that we are the most leather-headed profession on the face of the earth? Alas! they know not that they are brought in contact with the nethermost part of the profession, and take our "eel of science by the tail." The idea entertained of us by foreign physicians is, that we are a set of peculiarly gifted noodles, who by some incomprehensible instinct are enabled to cure our patients remarkably well, but without knowing why.

In a few years the aspect of things will be changed. When one faculty is established, it will shew its real heads, instead of the queer tuberosities—the amorphous bumps—which are now presented to the wonder and ridicule of our brethren of other lands!

—o—

Ointment to Allay the Irritation of Hemorrhoidal Tumours.

So much suffering is experienced from the incessant irritation of hemorrhoidal tumours, that every means capable of affording relief under such circumstances, must prove acceptable to the profession. I have used an ointment similar to the following, with the most happy effects, and in a great number of cases:—

Rx. Pulv. carb. plumbi, ʒ ss;
Sulph. morph., gr. xv;
Unguent. stramon., ʒ i.

Ol. olivar. q. s. M. ft. unguent. part. applicand.

Powdered opium, to the amount of a drachm, may be substituted for the morphia, and if the dry white lead is not at hand, that which is ground in oil, for the use of painters, may be advantageously substituted. Sometimes a drachm of powdered galls may be added.—*North American Archives of Medical and Surgical Science. Edited by Dr. Geddings. October, 1834.*

Foreign Medicine.

Encephalocele mistaken for a Wen.

AN infant of six weeks old had a tumour at the posterior part of the head, very nearly in the middle of the occiput, which was rather voluminous, and appeared slightly strangulated at its base. Pressure upon it caused no bad effects; there was no pulsation perceptible: the surgeons that examined it differed in opinion: some pronouncing it to be a wen, while others said it was a tumour of the brain. Palliative treatment was employed, but the tumour continued to enlarge; a consultation was held, the tumour was considered to be a wen, and was opened. A considerable quantity of serosity flowed from it, and then it was perceived to be formed by a portion of the cerebral substance. It was easy to foretell the result. The infant seemed to feel no bad effects for the first few days (as the wound was probably quickly closed), but sank on the eighth day after the operation (from a true encephalitis). On a *post mortem* examination, the ossification of the bones of the two superior portions of the occiput were found to have been suspended; and the tumour was formed by the protrusion of the left posterior lobe of the brain. This observation serves to confirm the opinion of those, who maintain that any doubtful tumours of the cranium should never be meddled with. There are two or three cases of the same sort related by M. Geoffroy-Saint-Hilaire, in his *Treatise on Monstrosities*.—*Journ. Hebd.*

Pretended Specimen of a Fossil Man.

In a letter written to M. Arago, and communicated by him to the Academy, M. Bernard announced that in the grotto of Gigny, between Bourg and Lous-le-Saulnier, were found some bones, which were designated *the fossil man*, and that these pieces were sent to Paris for the purpose of being examined. The skull of this man was seen by MM. Cornier, Flourens, and Dumeril, but these naturalists could find nothing that would warrant them in considering it a fossil. On the contrary, they found only charcoal and dust, and there were none of the bones of antediluvian animals found in the vicinity in which the former were discovered: they were

in the same state as the other human bones, which were supposed to be in a fossil state. They regarded them as an incrustation of a human head, which had been buried in the grotto of Gigny as if it had been in a catacomb.—*Op. Cit.*

What is the relation between Hemoptysis and Pulmonary Tubercles? By M. Frédéric Cuvier.

We shall confine ourselves to an extract of the conclusions, because they are perfectly well deduced from the rational and practical considerations which constitute the basis of this interesting work. 1st.—There is no necessary relation between hemoptysis and pulmonary tubercles: there is hemoptysis without tubercles; and there are tubercles without hemoptysis. 2nd.—Hemoptysis alone is not sufficient to constitute a diagnostic of tubercles; it must be supported by other corresponding signs, or by hereditary disposition, or by constitution, or other circumstances in life. 3rd.—If it be difficult to prove by observation, that hemoptysis produces pulmonary tubercles, there are, nevertheless, some facts which prevent the adoption on this point of the too exclusive ideas of Bayle and Laennec. 4th.—Hemoptysis is an extremely frequent symptom in adults, of the presence of pulmonary tubercles; it is very rare in children, and is never observed in animals. 5th.—Hemoptysis appears much more frequently before the period of softening of the tubercles than afterwards. 6th.—Hemoptysis is, in general, a more formidable symptom of the danger that is to follow, than of that which immediately accompanies it.—*Op. Cit.*

Case of acute Anasarca, successfully treated by punctures of the inferior Extremities.

A man, aged thirty-one years, of sanguineous temperament, of a good constitution, who never had suffered from serious disease previously, was attacked on March 10, 1835, with intense rigor, but of short duration, in consequence of laborious exertion, during which, all his body was covered with perspiration, and exposed without any precaution, to the effects of the atmosphere. The following day he complained of violent headache, all his limbs felt as if bruised with

blows; he was feverish, had intense thirst, and was obliged to leave his work and go to bed; he was then brought to the hospital.

A copious bleeding would undoubtedly have arrested the disease in the commencement; but the pupil who had the care of the patient, had the misfortune to miss the vein. The following days the inflammatory symptoms decreased, but the patient was quite surprised to perceive the inferior extremities swell first, and then the abdomen, scrotum, skin of the penis, face, arms, and all the external surface of the body. Being dissatisfied with the treatment which he received in the hospital, he returned home, more swelled, and worse than ever.

[This was on the 29th of March, when I saw him for the first time; he was in the following state: prostration, great dejection of mind, parching thirst, strong, frequent, and full pulse, head-ache, insomnia, the face pale and swelled; the hands, arms, thorax, and abdomen, very œdematous; the skin on all parts of the body retained for a long time the impression of the finger; the scrotum, which was enormously distended, resembled a bladder filled with serosity; the penis was as if lost in the enormous swelling of its sheath, the inferior extremities were twice as large as in the normal state.

My first care was to rouse the patient's spirits; I then prescribed a bleeding with refrigerating and diuretic drinks, which relieved the headach, calmed the pulse, caused sleep, and copious and clear urine, which had been scanty and thick.

The powder and tincture of digitalis, employed internally and externally, though continued for some time, and in increased doses, caused no amendment, and general œdema still continued.

Drastic purgatives were not more successful, they diminished however, the swelling of the abdomen, but this amelioration was but of short continuance. Blisters applied to the internal surface of the thighs were much more advantageous, and frictions with tincture of veratrine were employed three times a day, over the whole surface of the body.

The blisters discharged a prodigious quantity of serosity; the swelling of the face, arms, abdomen, and scrotum abated; but, notwithstanding all my efforts, I could not obtain a radical cure by the use of these edies.

Wearied by the failure of these different remedies, the patient at length consented to my request, and allowed me to make eight punctures with a lancet in the inferior extremities, at the union of the lower third with the upper two thirds of the leg: a great quantity of serosity flowed from the punctures, the patient from being swelled and œdematous, in three or four days became thin, and free from exudation. Frictions with the tincture of veratrine, were continued all the time, and no bad effects resulted, except severe pain, which continued for several hours in the incisions made in the internal part of the left leg. This pain extended to the heart, and caused some faintness. It yielded, however, to the use of a small cataplasm of linseed meal, wetted with thirty drops of laudanum. The patient was completely cured of his anasarca, when from his haste in returning to his work too soon, he was attacked with pneumonia, for which he was bled three times, and thirty leeches and a blister applied. On the 15th of May he was recovered from this disease, and since then his health is perfectly re-established. M. Berard.—*Journ. Hebd.*

—o—

ITALIAN MEDICAL INSTITUTIONS AND HOSPITALS.

THE following are a few extracts from Mr. Lee's work, of which a notice appeared in our last number.

The medical institutions of Italy are regulated much in the same manner as in France, being under the superintendence of their respective governments, and deriving their revenues from property with which they have been endowed, and from the bequests and donations of rich individuals. In most of the hospitals a director is invested with supreme power, and the election of medical officers is mostly decided by concours. Those officially connected with the medical establishments receive salaries; medical visits are made daily at an early hour. The patients are usually admitted on application, and are attended by a religious sisterhood, with subordinate male and female attendants; the bodies of those who die are examined, and supply the dissecting rooms, although the Italians are not in general very zealous in the cultivation of either natural or morbid anatomy.

The profession is divided as in France, into physicians, surgeons, and obstetric practitioners. The division between medicine and surgery is in some parts very arbitrary, the duties of the surgeon being confined to the application of local remedies and operations, while the physician is called

in to prescribe for the constitutional disorder accompanying surgical disease.

The principles by which the practice is guided, necessarily vary in the different states: at Florence and Rome they are based upon the Broussaisian doctrine much more generally than at Naples or Milan; but with the exception of the last city, the treatment of disease is infinitely inferior to the French. The number of followers of the Rasorian doctrine of contra-stimulus has very much diminished of late years, and the practice of giving large doses of antimony to supersede blood-letting in acute disease is comparatively rarely employed. The abstraction of blood from the system in small quantity at a time, is a mode pretty generally adopted, as are also blistering, baths, and lavements; sedatives are likewise frequently prescribed, but purgatives, tonics, and stimulants, are more sparingly used.

The Italians do not speedily adopt innovations, and auscultation, percussion, and lithotrity, meet with no advocates among them. In surgical cases little or no medicine is given; patients who die after accidents and operation, usually succumb to constitutional irritation or internal inflammations; hospital gangrene is also a frequent cause of death in some parts. The greater temperance of the Italians, however, and the purer air of their cities, render them less liable to severe inflammatory attacks and derangement of the general health, which so frequently supervene in surgical cases in England.

PARMA.

The *Spedale della Misericordia* has a plain exterior, but the principal wards are handsome, lofty, extremely clean, and airy. The clinical wards, and those for the military, are small, and not so well ventilated as the others. The hospital contains four hundred beds, but in May, 1834, not more than half these were occupied. There are four physicians and two surgeons. Rasori and Tommassini, the originators of the contra-stimulant theory, are professors of clinical medicine.

This doctrine supposes that life is the result of two forces, viz. stimulus, or excess of action; and contra-stimulus, or debility. These opposing forces, in a healthy state of the system, counterbalance and maintain each other in a state of equilibrium; but when one or the other preponderates, the healthy condition is destroyed, and disorder ensues. Hence the supporters of this system admit only of two orders of diseases—those from excessive excitement, and those from debility. This last condition is not considered merely as a negative state, or absence of stimulus, as in the Brunonian doctrine; but is regarded as the product of an active power, independently of the opposing force. Remedies are also divided into stimulant and contra-stimulant: among

the former may be enumerated tonics, opium, spirituous preparations: the latter include all agents which tend to lower vascular action; of these, antimony was most frequently had recourse to, and was exhibited in very large doses, being in many cases made to supersede sanguineous depletion. This practice counted, a few years ago, numerous followers, but is now made accessory to the other measures, and bleeding is carried to a greater extent in Parma than in most parts of Italy.

BOLOGNA.

The *Spedale St. Orsola* receives patients with chronic, syphilitic, and cutaneous diseases. There is also a department for the insane, about one hundred in number, who are lodged in four long corridors, separate from the rest of the hospital, and warmed by stoves in winter. The division for either sex contains a ward of about fifteen beds, twenty-eight cells, and a small ward for convalescents. The patients appear to be treated with gentleness. Contra-stimulant remedies are mostly employed, and the more violent patients are treated by low diet, confinement by the strait waistcoat, the cold, and surprise bath.

There is also a small, well arranged, clinical hospital, of about fifty beds, adjoining the university, where the most interesting cases are sent for the instruction of pupils. At each bed a paper is placed, stating the circumstances connected with the case. Two or three rooms are set apart for those persons who pay something towards their own maintenance.

The university is a handsome edifice, inclosing a spacious court-yard, and containing a fine library; an amphitheatre for the delivery of lectures; museums of antiquities, of comparative anatomy, of natural history, and of human and pathological anatomy. In this last are several wax models of healthy and diseased structure. Those illustrating the pellagra, and morbus ceruleus, are exceedingly well executed. There is also an interesting cabinet of casts, illustrating the progress of utero-gestation, anomalous presentations, monstrosities, &c.

This university, formerly the most resorted to of any in Italy, is now but thinly attended, the number of pupils being reduced to between four and five hundred, and most of the lectures are delivered at the houses of the professors. Political circumstances are said to be the causes of this change. Among the celebrated men who studied at Bologna, are Valsalva, Malpighi, and Galvani, to whom a monument is erected in one of the corridors.

Medical students are obliged to attend the classes during four years, in the following order:—first year, natural history, botany, chemistry, anatomy; second year, anatomy, physiology, comparative anatomy, institutes of surgery; third year, pathology, clinical medicine, materia medica, chemistry; fourth

year, pathology, clinical medicine, medical jurisprudence, and midwifery. During the last year of study, a certain number of patients are placed under the care of each pupil, who, previous to his examination, has to give an account of the cases, and of the treatment he has adopted. Surgical students attend during the first and second years the same courses of lectures as the medical pupils; third year, institutes of surgery, clinical surgery, anatomy, and dissections; fourth year, medical jurisprudence, midwifery, dissections, clinical surgery, and the performance of operations on patients, under the guidance of the professor. At the termination of the first year, students take the degree of bachelor; at the end of the second year, of licentiate; and at the end of the fourth year, of doctor of medicine or surgery.

The mode of examination of candidates is as follows: five professors of the different branches of education submit each to the candidate twenty different subjects, taken from his own course of instruction: the pupil draws one of these by lot, and is examined on that subject. Thus the candidate is examined on five subjects connected with medicine. When the examination is finished, each of the professors gives his vote separately, as to the fitness of the candidates; those who are considered not sufficiently qualified, have to study during another year.

FLORENCE.

The most prevalent diseases at Florence are acute and subacute inflammation of the lungs, pleurisy, bronchial affections, dysentery, gastric irritation, rheumatism, and diseases of the eyes.

The practice leans to the Broussaian: all irritants and tonics are avoided; bleeding is very generally employed: small quantities of blood, as four, six, or eight ounces, being abstracted at a time: consequently the frequent repetition is necessary, which has the effect, in many cases, of debilitating the patient, without effectually arresting acute inflammation. Hence one cause of the fatality attending acute inflammation of the lungs, known by the name of *Mal di Petto*, which so frequently occurs from the variable temperature of Florence. Leeches are often used, but not so generally resorted to as in France. Counter-irritation, by means of the application of tartarised antimony, is frequently employed. Purgatives are seldom used, from a dread of their inducing gastro-enterite; sedatives are not unfrequently employed. Prussic acid, or the aqua lauro cerasi, is sometimes given in bronchial complaints. Internittents are not of frequent occurrence; they are treated by venesection when required, and by the exhibition of the preparations of bark. In continued fever, small general bleedings are employed; more frequently, however, the application of

leeches to the pit of the stomach, lemonade and cooling drinks are resorted to.

Rheumatism is treated by bleeding, warm bath, and diaphoretics: the colchicum is not used; its effects in this class of diseases do not appear to be known.

In gastric and intestinal irritation, the application of leeches, and the administration of demulcent mixtures, are chiefly depended on. No operation is performed without a previous consultation, at which the superintendent of hospitals is present. All persons, professional or not, are allowed to be present at operations, which are frequently performed by the more advanced pupils, under the guidance of the professor of surgery. Operations are in general pretty successful; patients are bled subsequent to their performance in most cases. The lateral operation is performed for stone in the bladder; the *bistouri caché* is generally used for incising the neck of the bladder. Hydrocele is treated by the operation of excision, the method by injection is adopted only in recent cases. The operation of couching is preferred in cataract. Cases of strangulated hernia are operated on immediately: no other remedial means are employed, nor are many attempts made to effect reduction by the taxis. Strictures of the urethra are treated by confining the patient to bed, and passing an elastic gum catheter into the bladder, the size being gradually increased: when a catheter cannot be introduced into the bladder, a catgut bougie is passed into the urethra as far as possible, and retained against the stricture for some time: on withdrawing this, a catheter can generally be passed. Fractures of the lower extremity are treated by placing the limb in the extended position: in fracture of the thigh, the limb is confined by two long splints, connected together by a piece of cloth, passed under the limb, and extending its whole length; the splints are tied together by pieces of tape. By this mode sufficient extension is not kept up, and shortening of the limb, more or less, is the consequence. Ophthalmia, whether acute, chronic, or strumous, is treated by general or local depletion, warm emollient applications and fomentations; the patients being kept in a darkened room: stimulating collyria are scarcely ever had recourse to, and blisters are not frequently used in the treatment of diseases of the eyes. Under this treatment patients are long in recovering, and, from the debilitated state in which the organ is left, suffer frequent relapses after exposure to the sharp winds so prevalent in Florence. Inflammations of joints are treated by rest, local abstraction of blood, and emollient cataplasms; counter-irritation is seldom employed. It is generally a long while before recovery takes place. Mercury, both used externally and given internally, is chiefly trusted to for the cure of syphilitic

complaints; its use, however, is not carried so far as to induce copious salivation.

Union by the first intention is generally attempted after operations, or recent wounds. Abscesses are opened by a very minute aperture being made, and the matter forcibly pressed out. In two cases which I saw, this gave rise to severe inflammation of the part, accompanied with a high degree of febrile irritation.

(To be continued.)

Hospital Reports.

NORTH LONDON HOSPITAL.

Creosote in Gastrodynia.

CATHERINE O'KEEFE, aged 47, a married woman, who has had four children, was admitted August 25, under the care of Dr. Elliotson. She has not menstruated since Christmas. About nine years ago, she began to have attacks of spasmodic pain in the stomach, which occurred in paroxysms of two or three hours' duration, and at intervals of a day or two. These attacks always occurred a few hours after dinner. She has been salivated several times, and also bled and blistered, but these means have never afforded her any relief. On two occasions she was perfectly free from pain for six months. Nine months ago she began to feel pain, and a sensation of weight between her shoulders, and she also had sour eructations and a burning pain along the œsophagus. At present she is quite free from pain when the stomach is empty; but as soon as she has taken food the pain returns. When the pain seizes her, she can lie only on her back, and is at all times easier in that position. The abdomen is very tender to the touch. The pain is always relieved by hot ingesta. Pulse 60, small; tongue covered with white fur; bowels regular; urine clear; appetite variable; head-ache. *Creosoti m. ij. 6 ta. quaque horâ.* Middle diet.

27th.—Some pain in the left shoulder, shooting down the inside of the arm to the elbow; slight pain on pressing upwards under the diaphragm. Pain in the stomach continues.

29th.—Pain in the shoulder and arm has disappeared; but continues in the stomach. Bowels regular; pulse, 80. *Auge creosot. ad m. iv.*

Sept. 1st.—Much pain across the forehead; pain in the epigastrium continues. *Auge creosot. ad m. vi.*

3rd.—Pain in the stomach very severe occasionally; at first she becomes very hot, a perspiration then breaks out, and this is succeeded by cold shiverings, which after lasting for a short time, give way to the natural temperature. *Auge creosot. ad m. vii.*

5th.—Pain returns every now and then, but does not last very long. *Auge creosot. ad m. vii.*

8th.—Pain more severe; can scarcely sleep

at night; no appetite; pulse 78. *Sum. creosati m. x. 4tis horis.*

12th.—Pain very severe at times. Sleeps ill; bowels regular; she has taken additional doses of creosoti when the pain is severe, but without good effect. *Auge creosotum ad m. xii, 4tis horisum et sæpius si opus site.*

15th.—*Auge creosotum ad m.*

17th.—Pain much less: she says her urine is much increased in quantity since taking the creosote.

22nd.—Pain diminished; tongue white, slightly furred; pulse 75; appetite improved. *Auge creosotum ad m. xvi.*

25th.—Has scarcely any pain, and little tenderness at the epigastrium on pressure; tongue nearly clean; appetite good; thirst not greater than in health; pulse 70, full.

30th.—Feels very little pain in the stomach; the tenderness at the epigastrium is present only after paroxysms of pain; bowels open; appetite good.

Oct. 3rd.—Has only a slight pain occasionally in her stomach; her general health is good. *Auge creosotum ad m. xvii.*

6th.—Is now free from pain, except occasionally. *Auge creosotum ad m. xiii.*

Discharged cured.

—o—

Meeting of the Westminster Medical Society.

The first meeting of the Westminster Medical Society will be held on this evening, when we hope to have the pleasure of seeing a large assemblage of the members. We are satisfied that the discussions will be conducted with that spirit and demeanour, which has hitherto characterised the meetings of the Society.

—o—

BOOKS.

Practical Anatomy of the Nerves and Vessels supplying the Head Neck, and Chest, intended as a guide for the use of students in the dissection of these structures. By Edward Cock, Demonstrator of Anatomy at Guy's Hospital. 12mo. London: Schloss. 1835.

A very useful work for students.

The Encyclopædia of Anatomy and Physiology. Edited by Robert B. Todd, M.D., Lecturer on Anatomy and Physiology, at the Westminster School of Medicine, &c. &c. 8vo. Part III. Sherwood and Co.

North American Archives of Medical and Surgical Science. Edited by E. Geddings, M.D., Professor of Anatomy and Physiology. 8vo. Numbers I to X. Baltimore. Carey and Hart. London: Rich.

Remarks on the Theory and Treatment of Scarlet Fever; with brief notices of the disease, as it prevailed epidemically at Bridlington, in 1831. By Humphry Sandwith, M.D. 8vo. pp. 48. London: Highley. 1835.

THE

London Medical and Surgical Journal.

No. 195.

SATURDAY, OCTOBER 24, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XIX.

*Necroscopy of Gastro-enteritis, continued—
Question of General Symptoms.*

WE now proceed to the necroscopy of gastro-enteritis of longer standing, in which the patients do not die suddenly from the nervous phenomena, as in the preceding cases, and indeed, the inflammation may go from ten to a hundred days inclusive: but in stupor, when the disease is intense, they do not resist more than thirty or forty days at most. You then find the stomach no longer of a vivid red and contracted, but flaccid, and with black vascular ramifications resembling ecchymoses; in the greater arch, an utter absence or extreme thinning of the two internal tunics, and near to this a softening of the mucous membrane, extending gradually from the points where it is entire and appears hypertrophied and red, to those where it has disappeared, leaving only a serous lamina, which sometimes tears on the smallest touch. This great arch is pale and colourless. If you attentively examine the stomach, you behold the redness and sanguineous globules remaining in the organ diminish in proportion as you retreat from the undestroyed spots. The same may be observed with regard to the blood-vessels: you behold bloody streaks proceeding from the orifice of the stomach, and chiefly from the cardia: but as you approach the disorganized spot, you see no more of them. The same is remarked towards the pylorus, with this difference, that the brown and blackish colour is more frequent. Taking these discolorations of the stomach as examples, some anatomo-pathologists have concluded that the softening and wearing of the gastro-intestinal mucous membrane are not the effects of inflammation. But before adopting this conclusion, we must look to what actually takes place,

and to several circumstances of which they take no note. In the first place, it must not be forgotten that individuals who die on the onset of the disease exhibit redness of the great arch of the stomach, and those only who die at a later period are without it. In the next place, it must be remembered that those who sink from a pure and simple enteritis have not the membrane of this arch destroyed. Now, what happens when death does not occur in the acute stage of gastro-enteritis? One of two things—either the inflammation exhausts life by the incessant agitation of the nervous centres before leaving its principal situation, or, after having broken down the structure and destroyed the vitality of the mucous membrane, it leaves it for some other locality. Would you consider this phenomenon as physiologists, and not confine yourselves to the barren descriptions of pure anatomo-pathologists, you should observe the phlegmasiæ when in action, and not the traces of them alone; you should incessantly return to our great principle, that inflammation traverses the entire frame, and that when it no longer has wherewithal to feed on in one place, it leaves that place livid and dead, and passes to some other. But, turning to this said discoloration of the great arch, you will ask me, how it happens that neither redness nor blood is any more seen there? Because the patients drank copiously, and the fluids they took, remaining in the great sac, wash the portion of membrane that has lost its vitality, carry off the remains of the blood globules, and aid in the softening process—that is all. And so true is this, that in examining the inflammation in the neighbourhood of parts where the liquid has not been retained, you will still see vessels, and a coloration approaching more or less to the red of the acute stage. I may remark, in passing, that at the time when this destruction of the mucous membrane takes place, the cerebral functions become deteriorated. When an experienced physician observes that the adynamic symptoms have not yielded, that the ataxic phenomena are changed in form, and that there is idiocy, with deep-marked alteration of the physiognomy, hippocratic countenance, carphology, total want of intellectual and affective

faculties, that the irritation has ceased to predominate in the stomach, and that there is no more thirst, nor vomiting, nor red tongue, he conceives the mucous membrane to be irrevocably injured, and that the stomach is only an inert vessel that allows matters to glide through it, carrying with them the remains of the blood globules. Death being then inevitable, and at length passed, you open the stomach, and you find only a thin serous-like tissue in the great sac, which readily tears.

Some intermediate cases may be mentioned: for instance, those shades of phlegmasia which have not yet worked out the complete destruction of the internal membrane, and when it is covered by a kind of mucous web. But in this case it retains unequivocal marks of the alteration which inflammation has caused in it. For the rest, this paleness of the great arch of the stomach is not so decidedly remarkable in the duodenum, doubtlessly because fluids do not remain so long in that organ; yet there is a certain degree of discoloration, and you may then meet with softening, loss of substance, and slate-coloured patches, without a trace of blood, when the patient has sunk at an advanced stage.

The same observation applies to the portions of the intestines wherein inflammation prevailed in the first instance, and which are decolorized. They are so, because, the inflammation, having destroyed them, has passed into other parts: indeed, it rarely confines itself to partial attacks of the mucous membrane: after working the destruction of two or three feet of the small intestine, it fades there, and passes to the mesentery and large intestine, there, too, sometimes leaving a black colour, and even gangrene.

But you have other facts which explain these decolorations consequent on inflammation. Sometimes, in the latter period of the disease, a peripneumonia, peritonitis, or a violent congestion comes on, and induces the mortal agony. The blood has obeyed the inflammatory stimulus, and abandoned the red part of the mucous membrane, which then turns pale: you see nothing more of it then, and if you assert that the ulcerations and softening you meet with have been effected without inflammation, be assured you are in error. Further reasons are, that the patient has lost an excess of blood, either artificially or by a spontaneous hemorrhagic movement; in which case you find no blood, or else the little that remains has collected in the most suffering parts, and is discoloured. You should establish relations between the different autopsies, compare them with the symptoms and the different epochs of the disease: thus it is that difficulties are to be explained, and objections answered. Bear in mind, moreover, that this decolorization is far from being so common and so complete in any portion of

the intestines as in the great arch of the stomach, and that there are almost invariably traces of inflammation in their ulcerated follicles and the mucous membrane around them. Persons have insisted on the small number of cases in which they say it is decolorized, and no traces of phlegmasia are found. I know not with what sort of eyes they have looked, but I know that mine have never seen anything of the kind during the thirty years that I have been engaged in inspecting bodies, unless they wish to qualify as a non-inflammatory state the different deep slate-coloured tints, or the kind of paleness that succeeds inflammation, and have misunderstood the attraction of the blood towards the organ that had been the last affected. Such are badly observed cases, of which they cunningly make use to combat the method of observation followed by us, if you would not that I should say the doctrine we profess; for, what care I whether you call it doctrine or method! I do not pride myself upon being a *doctrinaire*; on the contrary, I reject the title, thinking, as I do, that our opponents are the actual *doctrinaires*.

To sum up; the mucous membrane is always phlogosed when the follicles are, or if it be not actually so, it is because the blood has left it, shortly before death, for other parts, or there have been excessive abstractions of blood, or this latter fluid is aqueous, as is the case in some lymphatic infants, in whom the traces of inflammation are not so red as in the adult. This I know, for I have also inspected a great number of children, and am convinced that they easily lose these red globules, that inflammation in them rather fixes on their parenchyma than their membranes, and that many adults, especially women, resemble them.

Such, then, are the principal alterations exhibited by the gastro-intestinal mucous membrane after inflammations. First, there is redness with hypertrophy, then the blackish-brown colour: increase of consistence and cohesion in the first degree; friability and softening in the second: gelatinous consistence and destruction in a still more advanced degree: necrosis in some cases. This detritus, observable in long-continued phlegmasiæ, is more or less red and impregnated with blood, according to the quantity of that fluid remaining in the digestive canal, and the manner in which the patient has been treated. We should also mention intussusceptions, which may be regarded as a consequence of disordered peristaltic and antiperistaltic movements, produced by a phlegmasia that convulses the muscular membrane: in intussusception the strangled end of the intestine is ordinarily pale, and the strangled end red—a fact that tells for those who treat inflammation by compression.

Remark that the different conditions that we have passed in review may be seen in the same individual, for inflammation is never

uniform in the whole extent of the digestive canal, except in dreadfully intense gastro-enteritis, such as yellow fever, or in epidemics produced by exceedingly powerful causes. You may sometimes open a hundred bodies, and in one only find the digestive canal equally red in all the points that had been previously occupied by inflammation. The later the patient dies, the less red colour do you find, and the more brown colour and softening. For the rest, there are varieties that it is impossible to explain: you may several successive times see the black colour without follicles and ulcerations; at other times you shall see the like lesion, altered follicles and ulcerations. The same may be said of worms. Something yet requires to be known concerning the action of the modifiers that engender the different forms of disorganization and morbid productions. Certain it is, that in some years follicular patches of the intestines are more frequent; in others more lumbrici are found: in others, again, some of all kinds are observed. During eighteen years that I have practised at Val-de-Grâce, I have remarked all these variations. Last year the multiform gastro-enteritis was more frequent and serious there, because the garrison was composed in great part of youthful conscripts, who only made complaint at a late date, and were not treated from the onset: there was not sufficient watchfulness on the part of the officers, in seizing the moment of the outbreak of the inflammation, and in causing the patients to be conveyed to the hospital. I suggested an order of the day, to which the colonels of regiments attended, and in a short time the diseases became less serious and more tractable: the black colour was less deep in those who sank, and the pathological disorders less numerous. The regiments departed and were replaced by others: the new commanders, who were not *au fait*, neglected to take the necessary precautions, and the same mischief ensued, to be again repressed by the enforcement of the same order of the day.

There are so many causes that are capable of varying the progress and results of diseases, that great care should be had not to be peremptory in the estimation of the pathological alterations, and not to create specific entities for the differences they exhibit. Sometimes, in places where there have been ulcerations, the digestive canal is in part perforated, especially in the phlegmasia of isolated patches and follicles. In some cases the peritoneum even gives way, and the intestinal gases pass into it: if this occurs during life, a peritonitis, proving mortal in from six to eighteen hours, may ensue. The inflammation may also reach the peritoneum without perforation of the intestine, and even without ulceration; in which case the entire thickness of the canal is invaded by the inflammation; certain

points are gangrened, and have sphacelated pieces hanging from them: other points exhibit indurations: others have contracted adhesions, or are covered with a false membrane. It is commonly in the ileo-cæcal region that these disorders are met with.

I must also give an account of the accessory cadaveric traces, the alterations of the bladder, the pharynx, larynx, nervous centres, and lungs. Phlegmasiæ of the bladder do not exist in all individuals: they rarely appear in the commencement of the disease; but when inflammation predominates in convolutions of the ileum that are in the neighbourhood of the pelvis and bladder, it is often communicated to that organ by the mere contact, so that I am convinced in some cases there is a kind of contagion, and not merely a propagation or sympathetic repetition. In other circumstances, when copious evacuations take place by vomiting and purging, little or no urine is secreted. The internal surface of the urinary apparatus then becomes heated and inflamed, as in yellow fever, for we have shades of gastro-enteritis that equal that one in intensity, and the suppression of urine very frequently dates from the very first day. This symptom is remarked in cholera, and, indeed, as a general rule, occurs on all occasions of excessive losses by vomiting, purging, sweats, hæmorrhages—in short, any sudden withdrawal of the serosity by the excretions, or any considerable loss of blood. In the instance of hæmorrhage the urinary passages do not inflame; but if there be at the same time heat of the digestive canal, they are threatened with inflammation. When you perceive in the hypogastrium swelling, heat, meteorismus, have a fear of the communication of inflammation to the bladder, and sometimes also to the kidneys. Even the genital organs occasionally contract it if it has not been properly combated.

So also of the pharynx and larynx, not in a consecutive manner, but primitively, while phlegmasia is raging in the upper portion of the digestive tube.

The lungs do not necessarily become inflamed by gastro-enteritis, although it is often accompanied with a certain degree of bronchitis: the part they take in inflammation is rarely such as to jeopardize their texture in warm weather; still, as gastritis frequently exists in cold weather, and is then almost always complicated with catarrhs and pectoral congestions, you may find various indurations of the pulmonary parenchyma more or less distant from the acute inflammatory aspect, but of which you would be wrong to make specialties. When a man has been a prey for forty or sixty days to successive phlegmasiæ, you may conceive that less redness and density is exhibited towards the close, and more paleness and watery humours than at the first day.

In the brain there are sanguineous congestions, or serous injections, more or less

decided in character, but always secondary, unless the encephalitis has become predominant, in which case, the disorders are more pronounced and more complicated. From facts which every one may substantiate, I think that in acute gastro-enteritis death only comes by the nervous system, and that it is possible to live with all the alterations it produces in the digestive canal, except softening of the stomach to a great extent. Anatomic-pathologists, as well as myself, have been struck with these alterations, but they have drawn a different conclusion; they believe that they can of themselves induce death—but it is not so; so long as there remains a sufficient surface for digestion, the patient may continue to survive, with frightful disorganizations of the abdominal viscera, unless, as I have already said, he be exhausted by marasmus and consumption; this, however, only happens in the chronic state. In the acute stage, it is the superexcitation of the brain, the disordered innervation that kills him. Thus, previous to the fatal termination, you perceive the nervous and ataxic symptoms by which this disorder is manifested appear; these symptoms, as well as the alterations that produce them, putting on a different aspect according to the manner in which the brain is affected, the strength of the patient, the treatment, and the period of the disease. If he dies at the onset, you find excessive congestion of the brain and spinal cord. This degree of the mischief we have frequent opportunities of seeing in military hospitals, where patients are brought in with frightful gastro-enteritis. We may sometimes destroy the patient, or ward off his end for twenty or thirty days, when the disorders of the gastro-intestinal membrane are not too far advanced; but most frequently he sinks in less time. We then find in the nervous centres, and particularly the brain, a violent sanguineous congestion without inflammation, without albuminous exudation, without softening, without any sign of suppuration; in short, only an immense accumulation of sanguineous globules with increased density. Death happening at a more advanced period of acute gastro-enteritis, you are not so sure to meet with congestion. Has the patient sunk in the ataxic phenomena, without stupor, with delirium, convulsions, increase of muscular power, more or less disorder of the locomotive apparatus, small pulse, excitement of the genital organs, fury, &c., the congestion of the cerebral parenchyma may be wanting, but you always find gastro-enteritis, frequently with ulcerations of the ileum, and injection of the periphery of the brain, or of the pia mater, and sometimes a commencement of arachnoid inflammation.

Has the patient sunk at a later period, with comatose phenomena, some distinctions are to be made; A, if he has retained his intellectual faculties, if he has not appeared

to suffer in the head, but simply in a state of stupor, from which he may be momentarily roused by speaking; if he has exhibited that reddish brown colour of the face, with sordes, and bloody oozing from the gums, and subsultus tendinum, you will find congestion; B, if he has been in a state of profound coma, senseless, with grinding of the teeth, clenching of the jaws, distortion of the features, cries of pain, permanent contraction of the arms, without possibility of getting them out of that state, you will find phlegmasia at the base of the brain and in the ventricles, and chiefly in the arachnoid of the base, if there has been much convulsive movement of the face. What I now state I shall repeat with greater details in speaking of primary encephalitis; nor is it from want of order that I do not now enter more into them, but for the purpose of being more methodical and complete. Irritations are ever the same, whatever may be the provoking causes; inflamed surfaces, whether primary or secondary, present constant and indelible characteristics; thus, consecutive inflammation of the brain will exhibit the same symptoms as the primary, except that it will be less intense.

In the states now under consideration, the muscular system is frequently softened, and the heart so friable, as easily to be perforated by the finger, and within it more or less fluid or coagulated blood is contained. But it is not enough to take note of this; you must endeavour to reconcile it with the symptoms and circumstances. When the disease has been rapidly mortal, the heart is not softened, unless an anterior phlegmasia of it and the great vessels has existed; but it ordinarily is softened when the disease has been lengthened out, the fever long and violently agitating, and the patient has died in a state of marasmus; it is also softened or only inflamed when the nervous symptoms have been intense from the onset, and the circulation, after being vehemently excited, has fallen into a collapsed state; so that the softening of the organ in question and its inflammation are proportioned to the degree of irritation of its parietes. Nevertheless, if the nervous phenomena have killed the patient before he has been exhausted, the heart will be as strong and firm as in an executed victim. And the same applies to the voluntary muscles.

You have also differences with reference to the treatment, the season, the regimen, not only in the state of the muscular and circulating apparatus, but also in the digestive canal. Patients treated with stimulants, and who have not been bled, will have their tissues firmer, more filled with blood, and more readily putrescible after death; those who have been purged will exhibit more bile and mucosities, accumulated principally in the naturally narrower parts of the digestive tube; those who have died in wintery and humid weather, after

taking improper food, will present still greater accumulation of matters, particularly if they be of lymphatic temperament; and such often have worms and numerous follicular patches. The latter are more remarked if there have been preliminary abdominal pains, diarrhoea from bad food, whereas they are wanting without these preludes, and if the stomach and duodenum have been violently stimulated. Of all these circumstances it would be easy to make so many entities and particular diseases: you have only to bring together on the one hand, those cases in which there is no diarrhoea, and on the other, those in which it does exist—the latter being the instances in which ataxic and adynamic phenomena have predominated, the latter the contrary instances, &c. &c: taking observations thus collected, each of you might in a few years present us with a particular disease, as well founded as dothientery. To resume, however; you will find the quantity of fluids accumulated in the digestive canal more copious as the patient has been more stimulated, as the distance from exhaustion shall have been more remote, as his constitution shall have been more lymphatic, and as he has more readily responded to stimulation of the secretory organs.

As regards the phlegmasiæ of the circulating system, you find them first of all in the heart. Whenever you find therein an unusual redness not removeable by washing, you may affirm that there is carditis present. In the arteries it may be more or less deep and adherent, confined to the lining membrane, and penetrating the entire thickness of the middle membrane. When the disease has existed a short time, this redness is only superficial, but suffices to attest the inflammation. Doubtlessly there are better proofs of its existence when these are intimately mixed with the various arterial and venous tunics, deep colorations or kinds of ecchymoses; but there is no occasion for the thing to go so far; superficial redness, in bands or zones on the internal surface of the vessels, are sufficient indices of the phlegmasia, especially if symptoms of excitement in the sanguineous system existed during life. On this proposition I insist, because people are daily venting opposite assertions.

These last details may be regarded as the full account of acute gastro-enteritis as regards its necroscopy. The principal point is, that every pathological alteration may be connected with it, not as a necessary accompaniment, but as a possible consequence of the inflammation primarily fixed in the mucous surface of the digestive canal, and as capable of invading other parts and producing the effects I have stated.

Pass we to another question already hinted at—are we to stay by fevers? Those who answer in the affirmative, lay stress on a distinction they make in febrile diseases

between the local and general symptoms. There certainly are local symptoms in gastro-enteritis indicative of inflammation of an organ; this is now allowed after being for a long time denied, and it is now agreed that phlegmasia of the digestive canal is the fundamental and local phenomenon *par excellence*, on which certain local symptoms depend. But what are the general symptoms, and in what light are they to be regarded? Would you apply the name to fever, restricting its meaning to the acceleration of the blood's course? but that is only the effect of the irritation, transmitted to the heart, or of the superexcitation of that organ. Would you apply it to the lassitude of the limbs and the various painful sensations experienced in the locomotive apparatus? but these phenomena are only pains from stimulation propagated by the brain and spinal cord to the nerves of that apparatus, and the first starting point of which is in one or more inflamed organs: in proof of which you may stay or increase them by calming or stimulating those organs. Moreover, you should remember that that which essentially constitutes the limbs and locomotive apparatus is not in a morbid condition: the cellular tissue is neither in a state of phlegmon nor infiltration—neither are the muscles and fibrous parts—nor are the circulating fluids more changed in these than in other parts. You have only a very vehement stimulus proceeding from the stomach or elsewhere, and passing along the nerves to the nervous centres, whence it is reflected; you cannot call that a general symptom. Would you call prostration such? but the heart which beats stronger, the pulse that is accelerated, the stomach that absorbs or vomits, are not in a state of prostration. Nothing but the muscles are prostrated, because a morbid innervation cripples their action. These symptoms relate to a modification of the nervous irritability. Would you have the moisture or dryness of the skin stand as general symptoms? but these states are only lesions of the skin, and then again the skin sometimes secretes and sometimes does not. Would you have the alteration of the urine? but that depends on the kidneys, varies as does the sweat, and both products are in inverse ratio of each other. Would it please you to consider the inflammatory state as general? but the dead body only gives traces of it in the points that have been occupied by phlegmasia. There exists no identical modification of the system that can be placed in precisely the same line as inflammation; the whole body is not inflamed when the gastro-intestinal mucous membrane is inflamed; the whole does not secrete too much when it does; the whole body does not become injected and decolorized when it does. Would you have the alterations of the humours constitute general phenomena? certainly these fluids will be changed when there is inflam

mation; hematosiis is no longer so perfectly performed; watery and medicinal fluids are introduced into the blood, there is absorption of putrid matters, &c. But it cannot be said that this is a general phenomenon characteristic of the febrile essentiality; for this alteration of the fluids is a fact common to all phlegmasiæ, and is of no leading importance, since it disappears with them. In fact, as soon as the irritation has ceased, the humours return to their primary condition. There is no general modification but death, which is a general loss of the powers of all the organs, and yet it does not leave them all in the same condition. Thus, then, the words *general symptoms* afford no signification when we would investigate their meaning. Were they made use of to designate consecutive irritations of different organs and of different shades, occurring with various degrees of congestion and innervation, and originating under the influence of a primary and fundamental inflammation, I could conceive of them; but having the meaning they generally possess, I cannot admit such expressions, and I hold that they should be expunged from the language of science as false and fit only to cause confusion, and that in their place should be substituted the words *consecutive phenomena or symptoms*.

—o—

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

By DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho:*

Session 1834-35.

LECTURE LII.

Vices of Conformation—Intra-uterine and Extra-uterine Diseases of the Respiratory Apparatus, continued.—Vices of Conformation, and Diseases of the Thoracic Portion of the Respiratory Apparatus.

GENTLEMEN—Under this head are included vices of conformation and diseases of the thorax, lungs, bronchiæ, and pleura.

These organs are liable, in common with all others, to malformations and diseases during intra-uterine life, and from the moment of birth to the end of existence.

The lungs and bronchiæ may be partially or totally absent in acephalous fœtuses. Otto found the trachea impervious in a case of this kind (Meckel). The lungs may be imperfectly developed, or placed external to the thorax, when the anterior wall of this cavity is undeveloped. Haller cites cases of this description, which were narrated by Burner, Bianchi, Fracassini, &c. He also

observes, that absence of the anterior wall of the abdomen is of more frequent occurrence. (*Opera Minora de Monstris*). A large portion of the abdominal viscera, as the stomach, part of the intestinal tube, liver, and spleen, have been found in the chest, and in such cases the lungs were very imperfectly developed. In other cases the lungs formed one mass, which was undivided by lobes. The right lung may replace the left, and *vice versa*; and the heart may be situated in the right side of the chest.

Every part of the lungs has been found in a state of malformation at some time or other. MM. Chaussier and Billard have observed congestion of the right lung at the Foundling Hospital of Paris; and the latter ascribes it to the custom of nurses, in placing infants on the right side in bed. He is also of opinion that the condition is to be referred to the flow of blood, as in the dead body, to the most dependent part. He found the bronchiæ pale, though this congestion existed in the right lung.

Infants are often born with rickets, and have the chest very much contracted, a condition also observed in congenital pleuritis. Examples of the latter are now often observed in young infants, since the attention of physicians was directed by Laennec to the true pathology of pleurisy. I have seen it in an infant under the age of two years.

Pleurisy and pneumonia may exist during intra-uterine life, of which MM. Mauriceau, and Billard have recorded examples. The latter adopts the judicious conclusion of Professor Capuron, that feeble infants do not always fill the air vesicles during respiration; and after death, the lungs sink in water. This fact is amply attested by writers on medical jurisprudence.

Pulmonary congestion, and apoplexy, are often observed in infants after birth. In some there is simple infiltration of blood; in others there is hepatization, which is most common on the posterior borders of the lungs, and more common in the right than in the left lung. The sound organ preserves its ordinary state and solidity; it is only infiltrated with a great quantity of blood, which is easily removed by ablution in water, and it sometimes happens that the bronchiæ are intensely red, and covered with a sanguineous exudation. Pulmonary hepatization is generally accompanied by a sanguineous congestion of the heart and great vessels, which it is necessary to remember, when we wish to distinguish the former condition.

Congestion and hepatization are caused by the superabundant quantity of blood in the heart and lungs during parturition.

The symptoms of pulmonary congestion are often obscure, but the following are usually present: the respiration impeded or difficult, the thorax is badly developed, the countenance is florid or violaceous, the cry

is weak and short, and percussion renders a dull sound, if one hand be applied to the front of the chest, and percussion gently made with the index or middle finger on the back, a method practised by M. Baron, with great success, in cases of the youngest infants. This method is considered much more accurate in early life, than even immediate auscultation, more especially in hepatization. In my own practice, I use the latter also, and it find a most valuable means of diagnosis. The treatment is similar to that for pneumonia, which will be immediately described.

Pulmonary apoplexy is more common in very young infants than in adults or aged persons, on account of the extreme frequency of congestion during this period of life. It consists in an effusion of blood, which is circumscribed in the tissue of the lung. This disease was first described by Laennec, and afterwards by Gendrin, Bouillaud, Denis, and Billard, the last of whom has related several examples in new-born infants. This disease succeeds pulmonary congestion, and its chief symptoms are great difficulty of respiration, stifled cries, and apparent threatening of suffocation; while percussion indicates the absence of the air from the affected part of the lung. There is sometimes an expulsion of sanguinolent mucosity.

The indications of *treatment* are ablation or weaning, however young the infant may be, because the dilatation of the chest, caused by suction, increases the danger of the congestion. It is also important to apply a leech or two to each axilla, as the venous plexus in this region communicates with the vessels of the thorax, and facilitates the sudden evacuation of blood, so essentially necessary in this disease. The use of the warm bath, blisters, and other counter-irritants, with the means proper for pneumonia, ought to be employed.

Pneumonia of infants at the breast arises from a peculiar cause, and one different from that which excites the disease in adults. The disease in infants is not induced by exposure to the atmosphere, but is evidently the result of congestion in the lungs. The blood acts as a foreign body, tends to alter the tissue with which it is in contact, and forms hepatization. In proof of this, M. Billard urges the frequency of the disease in the right lung, as infants are generally placed on the right side when put to bed; and thus pneumonia arises from a physical or mechanical cause, which is not the case in adults. Thus inflammation is circumscribed in infants, and the pleura is seldom implicated as in adults. The disease passes through all its stages, as hepatization, supuration, and ramollissement, as in adults. It is not, however, to be supposed that exposure to cold is not a frequent cause of infantile pneumonia, at a period of life when there is a great predisposition to the disease. It is also necessary to state that febrile

symptoms are not always present, though the real nature of the disease is determined beyond all doubt by percussion and auscultation. M. Billard relates cases in infants of a few days old, which presented all the phenomena already enumerated. According to his great observation, pleuritis is rarely present.

Pleuro-pneumonia is scarcely ever observed in very young infants, but attacks those more advanced in age, and is caused by exposure to atmospheric vicissitudes, and other external causes. It has been observed in an infant aged five months. The symptoms are those of pneumonia, accompanied by painful and more interrupted respiration.

Treatment.—The infant ought to be removed from the breast, and its strength supported by spoon diet in all the preceding diseases. Leeches are to be applied to the axillæ, or chest, and the number must be varied according to the age and strength of the infant. Dry cupping on the chest is a valuable auxiliary, and then a blister, which ought to be removed after three hours, or a thin mustard cataplasm, which will produce sufficient irritation in the course of a few minutes. Friction with warm oil of turpentine for a minute or two is also a very effectual rubefacient. The legs and feet may be placed in warm water with which some salt is mixed, and the bowels ought to be regulated, both of which means are efficient derivatives. Expectorants are of no use, as the bronchiæ are free from inflammation, which is confined and circumscribed in a certain part of the lung; and, moreover, an infant does not expectorate. Nevertheless, it is usual to administer ipecacuan and antimonial wine, the white oxide of antimony, antimonial and James's powder. M. Dugès has praised oxymel of squill in syrup. It is an erroneous and empirical practice to prescribe syrups whenever an infant coughs, as this is prescribing for a symptom of numerous chest diseases, but not for the real morbid condition.

Large doses of antimony are dangerous in pulmonary diseases of infants, on account of the prevalence of gastric or gastro-intestinal irritation among subjects of this age. M. Trousseau, of Paris, has lately praised the oxide of antimony in large doses in pneumonia of infants; but subsequent experience has proved the inefficacy of this remedy.

The warm bath is a favourite remedy, though M. Billard considers it injurious, on the grounds that the heat and pressure of the fluid augments the afflux of blood towards the chest, and increases the difficulty of respiration. It is certain, however, that a warm bath causes determination of blood to the skin and extremities, and equalizes the circulation, and is often followed by the greatest relief. I have often administered a minim or two of hydrocyanic acid prepared by Clarke's process, in an ounce of syrup,

in doses of a teaspoonful every hour, or second hour, with good effects. Mr. Hughes, of Holborn, witnessed the beneficial effects of this remedy in two violent cases of pneumonia, after all other means had failed; and I have used it in a vast number of cases at the hospitals and dispensaries.

It frequently happens that during convalescence great debility remains, tubercles are often developed, and the foundations of phthisis, asthma, habitual cough, or disease of the heart, are laid, which will become urgent in after life. When infants are recovering from pneumonia and other pulmonary affections, great attention ought to be paid to their general health; they ought to be kept warm by means of flannel clothing, the digestive functions duly attended to, and a nourishing diet prescribed. Proper employment of these means will, in general, re-establish health; but it is always necessary to impress on the minds of parents the great liability there is to a return of the disease, especially in cold and damp weather.

Bronchitis is a common disease of new-born infants, and is accompanied by a mucous and sonorous râle in some cases, though these characters may be absent. The disease may prove fatal, without the existence of any of its usual symptoms, as cough or any kind of râle, four examples of which are described by M. Billard. The disease often succeeds pneumonia, and may extend through the whole bronchial mucous membrane, and give rise to all the symptoms of suffocating catarrh. It may also become chronic and continue for a long time, and excite a copious secretion in the mucous membrane of the bronchiæ, and sometimes in that portion which lines the trachea. It is generally complicated with inflammation in the tissue of the lung, or it accompanies tubercular development at the root of the bronchiæ. This form of the disease of generally occurs about the age of ten or twelve months, and is attended with continual cough, difficult or laborious respiration, mucous râle, fever, and pallor of the countenance. To these symptoms are often added inflammation of the digestive tube, the mucous membrane of which becomes ulcerated or softened; the alvine motions are depraved, and all the symptoms of infantile remittent fever developed. The disease continues during the whole period of lactation or dentition, in some cases. At other times acute bronchial catarrh of new-born infants will frequently terminate in a few days, without the employment of any medicine. Its ordinary termination is by resolution, though serous infiltration, or œdema of the bronchiæ, or a sanguineous exhalation, may be the result, as proved by dissection.

The treatment should consist in the employment of the same remedies as in pneumonia; and when the disease becomes chronic, it has been proposed to employ those medicines which act on the mucous

membranes; such as the extract of copaiba but this last remedy is seldom prescribed in this country except in cases of adults.

Pleuritis is a more common disease of new-born infants than is generally supposed, and may exist independently of pneumonia or bronchitis. The symptoms are incessant restlessness and crying, insomnolence, cough, impeded respiration, florid or livid countenance, physiognomy indicating severe pain, and when there is effusion, dullness on percussion, dilatation of the chest, although the cries are clear.

Percussion and auscultation afford uncertain evidence of the existence of this disease, and it is difficult to distinguish it from pneumonia. I cannot assent to the conclusions of MM. Denis and Guersent in considering that auscultation and percussion are unless in cases of infants, as I have often found both exceedingly valuable in forming a diagnosis. It is fortunate, however, that the treatment is the same in both diseases, although the sequelæ are very different.

Pleurisy may become chronic, as in adults, and be followed by the same alterations of tissue, as adhesion or effusion. Some years ago these morbid changes were seldom suspected; but the discovery of auscultation, aided by percussion, has rendered their detection extremely easy. I have frequently observed effusion or hydrothorax in very young children, and in three instances the chest was contracted. Dr. Davies has described similar cases, and so have all the recent writers on diseases of the chest. The treatment for dropsies is required in this form of the disease, and the hydriodate of potass is a very valuable remedy in proper doses, for example, from two to five grains of the hydriodate, and an ounce of distilled water, of which a teaspoonful, or a drachm by measure, may be given twice or thrice a day, sweetened with syrup or sugar. The cathartic and diuretic powders prescribed for other forms of dropsy on a former occasion, are also valuable remedies in appropriate doses. Moderate counter-irritation on the chest, or the application of the ointment of hydriodate of potass or ioduret of lead, is a good auxiliary.

Œdema of the lungs consists in a serous infiltration, more or less abundant, into the pulmonary tissue; is rarely idiopathic and is generally consecutive on pneumonia or chronic pleurisy. The disease accompanies anasarca or infiltration of the cellular membrane, and also induration of the cellular tissue. It often exists without any symptom except laborious respiration, and for this reason it is said to occur in some cases in the agony of death, or to be a cadaveric phenomenon. At other times it is accompanied by cough, great difficulty of respiration, and danger of suffocation, and on dissection pneumonia, bronchitis or pleuritis is detected as well as the serous infiltration.

The indications of treatment are the same

as in hydrothorax, and the other diseases just mentioned.

Pertussis—Hooping Cough.—This commences as a common catarrh, and after ten or fifteen days assumes its peculiar characters; the cough becomes convulsive, and recurs by fits at variable intervals. The inspiration is long and sonorous, succeeded by several short and quick respirations, during which the air is expelled with unusual velocity, causing a peculiar sound which obtained the name of hoop; several of these fits rapidly succeed each other, the face becomes florid, there is a sense of suffocation, until a quantity of mucus is coughed up, which is expectorated or swallowed, and in the last case may be vomited, then the fit ceases, with all the appearances of perfect health. The patient now returns to his amusements, and often craves for food; but when the attack has been severe, it may be succeeded by fatigue, hurried respiration, and great languor.

On analyzing the paroxysms, we find much cerebral and pulmonary congestion; the former is so great, that there is often bleeding from the nose, and I have seen it from the eyes and ears. The return of blood from the head is impeded, and also the circulation of blood through the lungs; and for this reason hooping-cough is often succeeded by hydrocephalus or pneumonia. According as the disease advances it becomes more severe, but after an indefinite period of weeks or months it abates and finally disappears, or death is induced by disease in the head or chest.

It has been frequently observed that children exposed to the same atmosphere present symptoms of catarrh, but the disease disappears in some, and is succeeded by hooping-cough in others.

In some cases the disease is complicated with cerebral and pulmonary congestion, or pleurisy, and generally proves fatal. The fit comes on suddenly without any apparent cause, and the child grasps whatever it can lay hold of during its continuance. The disease is seldom accompanied by fever, until the brain or lung becomes congested or inflamed; but this form of complication is of comparatively rare occurrence. When hooping-cough occurs to infants affected with tubercles, it often accelerates their development and terminates by laryngeal or pulmonary phthisis.

The prognosis is unfavourable in proportion as the complications are dangerous, and the infants very young. M. Guersent has well observed, that infants at the breast are often affected with cerebral congestion, which usually destroys them. We can also estimate the danger to be apprehended from pneumonia, pleuritis, softening of tubercles, pneumo-thorax, and other complications which may occur with hooping cough.

Some contend that the disease is inflammatory, on account of the catarrhal symp-

oms at the commencement, and others on account of the appearances of inflammation found in the chest; but a preponderating majority maintain that it is spasmodic, as they treat it successfully in most cases with remedies proper for such condition, and without any antiphlogistic means. They hold also, and I entertain the opinion, that the inflammatory appearances found in the brain and in the lungs, are the effects or consequences, and not the causes of the disease.

Treatment.—The indications of treatment are to abate the catarrhal symptoms at the commencement of the disorder, and to moderate or remove the nervous complication which gives rise to the convulsive respiration.

The first indication is to be effected by bleeding, or leeching when the inflammatory symptoms demand it—the plan adopted by Willis, Sydenham, Astruc, Home, &c. This mode of treatment is very seldom necessary. Emetics are ordered, to free the stomach from the mucosity of the lungs, which is coughed into the pharynx, and then swallowed, and are said to be indicated by the spontaneous vomiting, which is a symptom very frequently absent. Antimonial and ipecacuan wine, with oxymel or syrup of squills, are the emetics usually employed. Mild aperients, as calomel, castor oil, manna, senna, and such like, are usually administered.

The second indication is fulfilled by the use of narcotics and anti-spasmodics, as opium, hyosciamus, conium, aconitum, belladonna, and hydrocyanic acid. These remedies ought to be used both internally and externally, so as to influence all the respiratory nerves. It is on this principle I employ them at the hospital and dispensary, and many students have observed more immediate benefit derived from the external than the internal use of these remedies. Thus I usually prescribe from two to four ounces of compound camphor liniment, with from two to three drachms of tincture of opium, a table spoonful of which is to be rubbed over both cheeks, the nape of the neck, dorsal spine, and sides and front of the chest, night and morning; and I generally find that in simple pertussis the hooping ceases in three or four days.

Some caution is required in using this liniment in delicate infants, as it may produce sleep, and would aggravate cerebral congestion if that existed, but in such cases a drachm of the tincture of opium will be sufficient. The splendid discovery of Sir Charles Bell, by which it was first clearly shewn that some of the nerves of the face were respiratory, afforded a satisfactory explanation of the method of Professor Hamilton of Edinburgh, in resuscitating still-born infants by rubbing the face with ammonia or ardent spirit; the rationale of which he was unable to give before the

important discovery of Sir Charles Bell. Stimulating liniments may be employed in the same manner as sedative, but I prefer the latter as less painful, and as equally, if not more efficacious. The empirical remedy called Roche's Royal Embrocation, is a stimulating liniment. Many mothers have requested me to prescribe the liniment alone, and omit the syrup if I pleased, which was composed of compound tincture of camphor, and hydrocyanic acid, with mucilage of acacia and simple syrup; and I have sometimes complied with the request, when the case was slight, for the purpose of enabling the clinical students to appreciate the value of the remedy.

A grain of the extract of conium, and of the extract of hyosciamus, may be mixed with an ounce of syrup, and a drachm administered every sixth hour, carefully watching their effects, and suspending their employment when necessary. The dose of aconitum or belladonna ought to be the eighth, sixth, or fourth of a grain, the quantity being most cautiously increased at the same intervals.

Some advise extract of conium, camphor, and opium, in powders; and I have known a pure apothecary, not a general practitioner, modestly exact two guineas for a dozen of these powders.

M. Guersent, of Paris, administers with great success a quarter of a grain of belladonna, hemlock, and oxide of zinc, three or four times a day, gradually and cautiously increasing the dose; and he administered a grain of the zinc every hour, to an infant of six weeks old.

Drs. Graves and Beatty very strongly advise a combination of tincture of cantharides, and compound tincture of camphor, so as to produce slight strangury, as very effectual in whooping-cough*.

Some strongly recommend blisters, antimonial ointment, and mustard cataplasms to the chest; but these are not, in my opinion, necessary, unless there is congestion or inflammation present.

Dr. Autenreith lauds antimonial ointment urged to pustulation in infants; but this requires much caution, as infants have been destroyed by the irritation of the remedy.

When cerebral or pulmonary congestion or inflammation is present, the proper plans of treatment advised under these heads are to be employed.

Carbonates of potass and soda are considered correctives of the condition of the stomach; but these are powerful medicines when the battle is won.

In some cases, change of air alone effects a cure.

Foreign Medicine.

EPISIORAPHY—ARTIFICIAL CONTRACTION OF THE VULVA.

BY DR. FRICKE, OF HAMBURGH.

We have already published, several months ago, an article on this operation; but just now, when the attention of surgeons appears directed towards means of effectually curing prolapsus of the uterus, the following details will be read with the greater interest, for the methods lately adopted in Paris have unfortunately not attained all that they promised. The patient operated on by M. Berard, junior, shown by him to the Academy of Medicine, and the history of whose case we published, saw before long her malady entirely reproduced. By a singular coincidence, which will give greater interest to the following analysis, the very day in which that account appeared, a paper on the subject, by Dr. Fricke, was announced at the Academy.

Episioraphy, or artificial contraction of the vulva, is an operation which has for its object to remedy prolapsus of the womb, in cases in which that organ cannot be retained in its place by any mechanical means. Dr. Fricke, director of the surgical department in the great hospital of Hamburg, published the first case of the kind in the second volume of its Annals. Since that period, he has repeated the same operation four times, and in three of them with success. D'Autrepont has likewise recommended it.

The operation is easy, short, and but slightly painful; but the subsequent treatment requires great care. The utmost neatness should be observed in the dressing of the wound, in order to avoid the contact, always pernicious, of a profuse muco-purulent secretion, and to obtain union by the first intention. Complete union as far as the perineum, has been obtained only once by Dr. Fricke. In the other cases there has always remained an opening greater or less; nevertheless, the design of the operation has been far from being defeated. The author considers, indeed, that this want of complete union may be regarded as a favourable circumstance, since the escape of pus and mucus is rendered more easy by this

* Dublin Journal of Med. Science, 1832.

inferior opening remaining. The sutures should be removed on the third day. If the edges of the wound have not united by that time, they will not do so at a later period; and the edges must then be pared afresh. The employment of lapis infernalis is of very great utility in cases where the adhesion is only partial. The following case is an example of success in circumstances the most unfavourable.

K. E. Sornsen, of Hamburg, forty-four years of age, the mother of four children, has laboured under *prolapsus uteri* since her last confinement, which took place quickly and easily, four years ago. A large cylindrical tumour, becoming smaller towards its inferior extremity, and of a pale red colour, was suspended between the thighs, in front of the external organs of generation. At its lower extremity was perceived the mouth of the womb, giving exit to a muco-sanguinolent fluid. Through this orifice a sound may be made to penetrate about a quarter of an inch into the uterus. The upper extremity of the tumour adhered to the internal surface of the labia, in such a way as to prevent the passage of the finger: the tumour was not painful: it measured nine inches and a half in its greatest circumference, and four in its least.

A prolapse of the womb could not be mistaken. Walking was difficult; the neighbouring parts, excoriated by the friction, were very painful; the stools were rare, taking place only every two or three days, and most commonly, only from injections. The passage of urine, although difficult, nevertheless took place spontaneously. The tumour could be easily reduced when the patient lay down; but whenever she rose up, it returned immediately. When it was replaced in the pelvis, the external organs appeared of such magnitude as to permit the closed hand to be easily introduced into the vagina. The mucous membrane of the latter was very much enlarged and relaxed. The condition in life of the patient, who was a work-woman, and the state of the parts, did not permit the idea of applying any mechanical means. Recourse was had, therefore, to the operation, although the extreme relaxation and dilatation of the parts was a condition very unfavourable to success.

The patient being placed on the operation-table, with the buttocks raised, and the knees brought near the abdomen, as in lithotomy, the operator, with a pointed bistoury, removed a portion of the skin covering each of the labia, to the extent of half an inch in length, and about two lines in breadth. In this manner the incisions formed a sort of V, the closed extremity of which was directed towards the perineal angle. During the operation, an assistant prevented the vagina from protruding. The surfaces of the labia thus bared, were then brought together, and retained by three sutures, after having previously introduced a soft sponge into the vagina, cut in the form of a cone. The thighs were afterwards brought close together, and maintained in that position by bands. The orifice of the vagina thus closed, had not more than an inch of longitudinal diameter.

After the operation, which was prompt, and not very painful, the patient was placed carefully on the right side. From that time until the cure was complete, the urine was constantly drawn off by means of an elastic sound.

First Day after the Operation.—Slight fever; little pain; moderate suppuration of the wound. Careful injections were made of tepid water.

Second Day.—A little swelling around the wound, and suppuration more abundant. The sutures were taken away without separating the thighs of the patient. The superior and anterior part of the wound was found to be united by the first intention. The inferior and posterior part opened afresh the moment the threads were taken away. A little sanguinolent pus escaped. Injections were made with a small syringe, of a solution of acetate of lead in infusion of camomile.

Third and Fourth Days.—The inferior edges of the wound, which separated on the second day, have begun to suppurate, and are become a little flabby; they were washed with a little compound tincture of benzoin. The sponge, filled with pus, was carefully extracted by the superior opening of the vagina.

Sixth Day.—That portion of the wound which was united by the first intention, is still solid and secure. Extending from one

labium to the other, it forms as it were a bridge, which divides the opening of the vagina into two; the one superior, which is the larger; the other inferior and smaller. This bridge was touched with a solution of the nitrate of silver. Little tents of charpie were introduced into the vagina by the inferior orifice. A natural stool was passed.

Eighth Day.—The patient, whose condition became very uncomfortable, was removed to another bed, placed on an inclined plane; the thighs always kept together.

Twelfth Day.—The borders of the wound were touched with *lapis infernalis*. The bridge formed by the union of a portion of the labia, was surrounded carefully with pledgets of charpie.

Sixteenth Day.—The part of the wound united by the first intention, is still firm and secure; the other part, of which the edges remained separate, have begun to cicatrize.

Twentieth Day.—The cicatrization is almost complete; there only remains at the lowest point, a little opening where suppuration continues.

Twenty-sixth Day.—The wound has cicatrized throughout its whole extent. The little bridge passing from one labium to the other, is five lines broad, five lines long in front, and six behind. The bands were removed from the thighs, which the patient was allowed to separate; she was also permitted to take a more comfortable position; nevertheless, she did not get up till the end of the fourth week. The vaginal opening is, as we have already said, divided into two; the anterior orifice, next the pubis, being an inch in length, and the posterior one, towards the perineum, being fifteen lines. The uterus and vagina are perfectly retained in their position; and the woman can, without any inconvenience, return to her occupation.

—o—

CROUP WITHOUT COUGH.

BY DR. MICHAELIS.

In the month of February, 1831, at ten o'clock in the morning, Dr. Michaelis was called to a child four or five years of age, and of a robust constitution. The patient, of a lively disposition, and very well in health up to the previous day, was lying on

the back, indifferent to all around, scarcely uttering a word, and with an expression of pain on his countenance. He answered questions with difficulty, by means of motions of the head. After an attentive examination, nothing could be discovered beyond an embarrassment in the respiration; no pain in the head or abdomen. Under the supposition of intense inflammation of the lung*, leeches were ordered to the chest, together with sal ammoniac and tartarized antimony, in divided doses. At five o'clock in the evening, the difficulty of breathing was so great, that immediate death was apprehended. He lay motionless on the back, with the head a little turned round, and the arms extended abroad on the bed, forming a large angle with the rest of the body. The child has not yet coughed once.

In this state of the symptoms, Dr. Michaelis, after much consideration, recognized the case as an example of croup without cough, a pathological phenomenon excessively rare. After having urged the patient in vain to cough, he made him respire the vapours of hot vinegar. Scarcely had he made a few respirations, when he began coughing. This cough had so distinctly a croupy character, that a woman who was present, exclaimed with astonishment, "Can it then be the croup?" An emetic was administered to the little patient, which brought up a quantity of glairy matter, and of membranous substances, the nature of which could not be mistaken. The respiration became more easy, and the child brought his arms to his body. Leeches to the neck, with calomel and golden sulphuret of antimony, which produced several stools. A good night. Several fits of coughing, with easy expectoration. Respiration good, and without any particular sound. General perspiration. Urine natural, with single light film. The child no longer answered the questions of the physician, although he replied to his mother. Powders continued, then the antimonial sulphuret alone; and lastly senega. Complete recovery, without relapse, on the fifth day.

Dr. Michaelis, who knew nothing more of croup without cough, than what has been

* Where was Dr. Michaelis's stethoscope in this case?

said by the celebrated Heim, remarked that the case related above is unique, in the circumstance that the cough, regarded by all authors as a pathognomonic sign, was brought on in an artificial manner. In the cases cited by Heim, the existence of croup was only made known by the post-mortem examination, provided the cough had been wanting throughout the whole course of the disease.

Heim, in a work which he published at Berlin, in 1810, on the Nature and Treatment of Croup, says on this subject, at the 8th page:—"An experienced physician might mistake this disease. A little while ago, died of this affection, at Berlin, a child of two years old, who had a cough at the commencement of the affection, and who, in consequence, never had a clear voice. It was not till two days before his death, that I recognized the disease, and then principally from the circumstance that the child kept his head continually bent forwards. All assistance came too late." Again, at page 15—"Catarrh sometimes exists without a cough, properly so called. The latter is often only very moderate in croup; for if it becomes severe, the patient cannot produce the well-known characteristic sound." "If the voice be wanting, we may easily be deceived. I candidly confess having been deceived more than once."—page 19.

These quotations leave no doubt of the existence of croup without cough; and, since the work of Heim is well known, it is astonishing that no other author has mentioned the affection. In order to do honour to the work of that celebrated physician, Dr. Michaelis proposes for the future to call the disease, *Angina membranacea occulta Heimi*.

—o—

CHLORIDE OF SODA IN INTERMITTENTS.

—

Two physicians, Messrs. Munaret and Lalesque, had each presented to the *Academie des Sciences*, for the Monthyon prize, a paper on the efficacy of chloride of soda in intermittent fevers. Both claimed the priority of discovery. Dr. Roche, in a letter which he has addressed to the Academy, asserts that the honour belongs neither to the one nor to the other, but that he is himself the

author of the discovery. He had expounded, in the *Journal Universel et Hebdomadaire*, and in the third edition of the *Traite de Medecine et de Chirurgie*, which he published in conjunction with M. Sanson, a new theory on the subject of intermittent fevers, from which he deduced the utility of the chlorides in those diseases; and this was at the beginning of September, 1833. Now, M. Lalesque, who had the priority of date to M. Munaret, did not make and publish his first experiment, until a month after M. Roche had recommended the attempt.

—o—

ITALIAN MEDICAL INSTITUTIONS AND HOSPITALS.

(Concluded from page 384.)

ROME.

The practice in the treatment of disease inclines to the Broussaian; the abstraction of blood in small quantities is resorted to in the majority of cases, and as a preventive against malaria fever. Blisters are used to combat the consequences of inflammation. The exhibition of large doses of antimony in acute inflammation is less frequent than formerly. In bronchial affections, prussic acid and sedatives are frequently employed. Vaccination is not much encouraged, nor is the stethoscope used. When constitutional disorder accompanies surgical disease, the physician is frequently called upon to prescribe, the surgeon confining himself to operations and the application of external remedies.

NAPLES.

The lectures of the Colleges of Medicine and Surgery on the several branches of medicine and surgery are delivered at the *Spedale degl' Incurabili*; clinical lectures on medical and surgical cases, and on diseases of the eyes, are also given. Dr. Quadri is professor of this last branch of surgery: he employs depletion and warm applications only at the commencement of acute ophthalmia; in the varieties of chronic inflammation, he has recourse to counter-irritation and stimulating collyria.

The practice is chiefly "Hippocraticque," the administration of remedies being determined by observation of the symptoms in each particular case. Bleeding is not so general as at Florence or Rome; antimony and James's powder are in very general use in acute disease: this remedy, however, is not given in the same large doses as formerly. In syphilitic cases, mercurial frictions are made in the sole of the foot, and continued for about twenty minutes each time, by an assistant, whose hand is covered by a leathern glove. Vital operations are only performed in spring and autumn, except in cases of

emergency. Over the operating theatre a hand is painted, with an eye in the palm.

The dressings made use of to wounds are mostly simple, stimulating applications being rarely used; union by the first intention is attempted, where practicable.

—o—

GERMAN MEDICAL INSTITUTIONS.

The hospitals of Germany, like those of France and Italy, are under the superintendence of their respective governments; but are inferior in point of size and interior organization. They are mostly supported by funds derived from taxes on parishes and districts, and by contributions from servants and others of inferior classes, who thus, when ill, acquire a title to admission. Some of the patients also pay a certain sum weekly for their support. A fixed salary is allotted to the medical men, who are not elected by public competition, but are mostly appointed by government. Hired nurses attend upon the sick, there being no religious sisterhood to undertake this duty. The bodies of those who die in hospitals are generally examined, though morbid anatomy is not very zealously cultivated. Professional visits are made daily, at a later hour than in French and Italian hospitals.

Germany contains upwards of twenty universities—a larger number than any other country. The situation of most of them in small quiet towns is well calculated to favour studious habits.

The relations between professors and students are much more intimate than in France and Italy, and the love of science is stronger than in those countries. This devotion to science, and seclusion from general society, occasionally gives rise, however, to a degree of pedantry and confined views, even in men of extensive acquirements, and no where are there so many poor *savans* as in Germany.

In most universities the instructing body forms a part of the state. The chief has the title of Rector Magnificus, a dignity frequently retained by the prince himself. As the rector cannot always personally superintend the affairs, most universities have a pro-rector chosen annually from among the professors. After the pro-rector come the deans of the faculties, also chosen from the professors, and lastly the professors, who are divided into three kinds, private professors, extraordinary professors, and ordinary professors.

The usual manner of becoming attached to an university is to begin by filling the office of private professor, who is not a public functionary, but who has the right of giving lectures, and if he distinguish himself, is appointed an extraordinary professor when a vacancy occurs: he is then a servant of the state and receives emolument. The highest degree is that of ordinary professor, who has a higher salary and peculiar privileges. It results from this arrangement that the number of

professors is very great; the different branches of science being frequently taught by two or three at the same time. It is customary in most universities for students to pay for attendance on the courses of lectures. Those of the Austrian states form, however, an exception. Professors are indeed obliged to give a public course every six months; this, however, treats only of secondary objects: the most important courses are never gratuitous.

The students, notwithstanding the roughness of manners which prevails in some universities, are for the most part attentive, persevering, regular in attendance, and decorous in their behaviour, in the lecture-room. Of late years drinking, quarrelling, and taking part in political disturbances, occur much less frequently among them.

The practice of medicine is not in general based upon any particular theory, but it is regulated by the observation of symptoms in individual cases, and approaches nearer to the English than to the French method. The abstraction of blood, both by venesection and leeches, is less frequently had recourse to than in France and England, but active internal medicines are pretty generally employed: baths and enemata are also much used, while tisanes, infusions of simple herbs and demulcent potions are not usually given, except as vehicles for the exhibition of more energetic medicaments.

Auscultation and percussion do not find many adopters in Germany, and lithotripsy has, I believe, only been performed at Berlin. Medicines are not in general given in surgical diseases with a view to their constitutional operation, and, with the exception perhaps of Berlin, the management of surgical cases is very inferior to that of England and France. As, however, the practice varies considerably in different parts, it will be best illustrated by reference to individual hospitals.

The following is a list of the German Medical Schools and Institutions.

Stuttgart; Tübingen; Nuremberg; Prague; Dresden; Leipzig (the Professors are, of anatomy, Weber; physiology, Kühn; pathology and therapeutics, Cerutti; clinical medicine, Clarus; clinical surgery, Kuhl; Berlin (professors, Kluge, Rust, Wafe, Graefe); Halle (the University of the two Meckels); Göttingen (anatomy by Langenbeck, physiology by Blumenbach); Bonn.

With regard to the curriculum of study required the following may stand as instances.

At Prague, five years is the required period of study preparatory to the examination for a medical diploma. The three first are devoted to attendance on the different lectures, the two last principally to the clinics, pupils having patients placed under their care, of whose progress they are required from time to time to render an account. Pupils are examined every six months during their studies; the final examinations for the diploma are two: the first is on anatomy, physiology,

natural history, medical and surgical pathology and therapeutics, before the dean, and the professors of these sciences: the second is on chemistry, materia medica, medical jurisprudence, practice of medicine and surgery, and clinical examinations at the bedside. A thesis must also be written and defended. Surgical candidates have likewise to perform two operations on the dead body, describing the steps of the operation, the advantages of various methods, &c. The expenses of examination amount to about twenty pounds.

At Berlin the number of students in the four faculties is sixteen hundred and fifty-one. Of these, four hundred and thirty-one are not Prussians. Three hundred and fifty-eight attend the medical classes in the following order;—first year, anatomy, physiology, botany, chemistry; second year, materia medica, therapeutics, general and special pathology; third and fourth year, the medical, surgical, obstetric, and ophthalmic cliniques. Each course of lectures costs the student from two to three louis: the fees of examination amount to about twenty-five louis, and the whole expense of professional education to about one hundred and fifty. Candidates have to undergo four examinations; the first is for promotion, the second, termed the *tentamen*, is made by the dean, and takes place before the period of study is terminated; the third, or *rigorosum*, is made before the professors of the faculty, when each professor examines on his particular branch of education. Three or four students are examined at a time, and the examination generally lasts upwards of three hours. Candidates have also to write and defend a thesis in Latin.

After passing these ordeals, the candidate acquires the title of doctor, which, however, does not authorize him to practise before undergoing the last examination. The title of doctor may be obtained at any of the Prussian universities; but all candidates are obliged to repair to Berlin for the public examination, which is divided into several parts, and lasts several days. In the anatomical examination, the candidate takes from a vase the name of one of the bones, of which he is required to give a description without hesitation. In like manner, the name of a viscus is drawn by lot, and described: a part of the body, to be dissected and demonstrated, is also indicated in the same manner. An anatomical description of the contents of the cranium, thorax, or abdomen, with the relative position of the viscera, is likewise required. In the surgical examination, the candidate has to make a dissertation on a subject chosen by the professor: he has also to perform operations publicly on the dead body, and describe the different steps of the operation; also to give a demonstration on the skeleton, of the method of treating fractures and luxations: he has the treatment of two patients in the hospital for a fortnight, and

takes daily notes of the cases, which are read at the examination. Candidates for the medical diploma, have in like manner, the care of two hospital patients.

—o—

TORSION OF ARTERIES. BY DR. BAMBERGER.

M. Bamberger has instituted comparative researches into the different modes of executing the torsion of arteries, in order to estimate the hæmostatis power of each, and the greater or less facility which each plan offers in its execution. According to him these methods may be reduced to the four following.

1. Simply lay hold of the end of the divided artery with a pair of forceps; separate it from the surrounding parts; draw it out a little, and twist it.

2. Begin the operation as in the first method; but before twisting the artery with the forceps, which hold it in a direction parallel to the axis of the vessel, fix the latter by means of another pair of forceps, held perpendicularly to the first pair, and applied about half an inch from the end which has been drawn out, that is to say, just about the level of the surrounding parts. The forceps last applied prevent the torsion from extending into the flesh. The extremities of the instrument are to be rounded and smooth, without teeth, in order that they may not lacerate the portion of the artery to which they are applied.

3. Seize the vessel, as before, with forceps held parallel to its axis; then apply, across the artery, the forceps which are to fix it, at the point where the extremities of the first pair terminate; and by sliding the second pair towards the origin of the artery, the internal and middle tunics are made to pucker up within the external coat. This done, take away the second instrument, and complete the torsion with the first.

4. This differs from the method last described only in the circumstance that, in the last stage of the operation, we continue to fix the artery with the second pair of forceps, while the twisting is performed with the first, just as was done in the second plan.

Each of these methods, again, may be modified in two different ways, according as the twisting is limited to a few spiral turns, or is continued till it produces, on the end of the vessel, a little conchoidal cone.

M. Bamberger has repeated these four plans a great number of times, and in different circumstances, in order to compare them with each other. He has operated upon horses, cows, goats, sheep, dogs, and rabbits. In general he has succeeded by them all; and in the very few cases where he has failed, the consecutive hæmorrhage always depended on causes independent of the operation. He has also performed it several times on the dead human subject; he

has examined the form which the extremity of the twisted artery assumes; and has made comparative injections, for the purpose of ascertaining which kind of occlusion resists best the force of the liquid column. They all appear to him equally secure, the injection not having succeeded in forcing an issue in either of them. He has made necroscopic examinations of animals submitted to these experiments, at different dates from their performance. Sometimes he has found the internal tunics irregularly torn and puckered; at other times, twisted in a spiral form, and presenting a little hardened cone; frequently they were cut smoothly across, and were covered only by the external tunic, which formed at their gaping extremity a little conical hood.

In the third and fourth methods the end of the vessel always bulged a little, before terminating in a cone, and the internal coats which constituted this bulging, always formed a very solid cone. In the second and fourth methods the external tunic is injured at the point where it has sustained the pressure of the second pair of forceps; and this, in some cases, may expose it to rupture.

Coagulated blood, and the exudation of lymph, are found equally in all the modes of proceeding. In the first, the clot is prolonged furthest toward the heart; generally as far as the spot where the first collateral branch is given off. If the internal coats are ruptured longitudinally, in consequence of the simple twisting, the blood distends the external coat, at the place where the rupture exists, and thus gives rise to a kind of consecutive false aneurism. When the internal tunics are forced back towards the heart, as in the third and fourth methods, the exudation and adhesion of lymph between the compressed tissues appears to take place more promptly.

All the preceding modes are good. The first is unquestionably the most simple and easy. The third offers the greatest security, but it is more complicated, and more difficult of execution. The second and fourth labour under the disadvantage of injuring the external tunic; but they prevent the twisting from extending into the flesh.

M. Bamberger insists much on the choice of the forceps; but this does not appear to us to merit such great attention. If we take away a portion of the twisted artery, a foreign body is not left in the wound, which may thus be closed more perfectly—an essential advantage in the operation of torsion; and in consequence of which it deserves a preference over the ligature. We shall not enter into all the author's details respecting the experiments he has instituted, nor into his description of the instruments which he adopts, and of those he rejects. Neither shall we meddle with his critical remarks on the crotchet, on the forceps of M. Amussat, Schröder, Rust, &c. As the au-

thor promises us shortly another work, on torsion practised on the living human subject, we shall have occasion to revert to all these matters.

—o—

CONCEPTION—CAN IT TAKE PLACE WITHOUT COITION?

—

Under this title Doctor Casper, of Berlin, has published a paper, taken from the manuscripts of Professor Heim, comprising seven cases which have for their object to establish an affirmative answer to the foregoing question. It is a question, undoubtedly, of great importance, with respect not only to physiology, but also to legal medicine. Examples are incontestible of pregnancy while the hymen remains entire. The celebrated Heim, a man of great name and high authority in Germany, has even collected instances where conception took place, although the spermatic fluid was lodged only at the entrance, or before the orifice of the vagina. We may conceive this possible, if we admit that the fecundation of the ovum takes place from the emanation of the *aura seminalis*. But Heim goes still farther, and allows the possibility of fecundation by the simple aspersion of the semen on the lower part of the abdomen. In support of this opinion he cites four cases, which he met with in his own practice, and three others from the papers of M. Ribke, professor of midwifery; which cases, according to him, leave no doubt of the possibility of the fact which he advances. We will confess that the perusal of these cases has not left on our mind the same conviction which appears to animate the author. But, could this be otherwise? This conviction of the celebrated Heim, was it not in consequence of the reliance which he placed on the persons who were the subjects of his observations? It is a purely *moral* conviction which he has acquired, and which cannot be possessed by him who has not the same faith in the veracity of the persons whose cases Heim relates.

These facts are of no importance by themselves. They only obtain weight from the name of the two celebrated men who have published them, and who still enjoy, among our German neighbours, unbounded credit and confidence. The last consideration alone has induced us to dwell on this delicate and long unresolved question, to which we call the attention of French accoucheurs and medical jurists.—*Journ. Hebd.*

—o—

TRAUMATIC TETANUS CURED.

—

There are so few instances of recovery from this dreadful disease, that it is consolatory to be able to relate a fortunate termination. This case is related in the 5th volume of the Calcutta Transactions, by Mr. Grant. The

patient was a *Parsee*, who had received a slight contused wound in the face, and a fortnight afterwards exhibited unequivocal symptoms of trismus. Some mercurial ointment and camphor had been rubbed on the side of the face before entrance into the hospital. The pulse was quick, but there was no other constitutional disturbance. One hundred drops of laudanum were given him at bed time—the warm bath—belladonna plaster. Next day he seemed a little better, and a quill could be got into the mouth, to inject nourishment. Fifty drops of laudanum were given the second night; the bath to be repeated. A turpentine injection was ordered, to obviate the constipating effects of the laudanum. Next day he could open the jaw half an inch. Medicines as before. On the fourth day, he retrograded much. He was ordered three grains of extract of belladonna. Fifth day, the pupils dilated. The medicines to be repeated, and to have an enema twice, each containing fifteen grains of tartrate of antimony. Sixth day: the injections had produced a general feeling of coldness and weakness, but no vomiting. The second enema was followed by two motions. He could not swallow pills. Sixty drops of laudanum to be given. To have the warm bath usque ad deliquium. These remedies, with some variations, were continued several days. On the 12th day opethotonos occurred, and rendered the case more hopeless. Was ordered two grains of extract of stramonium every two hours. This seemed to afford relief, and the medicine was continued in smaller doses. On the 18th day, the stramonium was omitted, and ten grains of opium were given. The bowels were kept open by enemas. He continued to mend, though slowly, from this date.

Another case, somewhat similar, is related in the same volume, by Dr. Gilmore, where tetanus followed a severe sword-cut in the thigh. This patient was freely bled after the spasms had commenced; and the treatment consisted chiefly of calomel, camphor, soda, and purgatives. One of these purgatives produced vomiting and purging, during which large indurated masses of feculent matter were discharged. From this time the symptoms became more favourable, and recovery took place.—*Dr. Johnson's Medico-Chirurgical Review.*

—o—

TWO CASES OF ANÆMIA.

In the fourth number of the Baltimore Medical and Surgical Journal and Review, there are some observations upon the pathology and treatment of anæmia, pointing out some of its most striking peculiarities. That its existence depends upon a previous morbid condition of the solids, there can be but little doubt, and that it should be

generally regarded rather as a symptom of pre-existing disease, than constituting a disease itself, we think is equally true. Yet, when the anæmic stage is once fully developed, that it excites symptoms which are peculiar to itself, and which call for a method of treatment somewhat special, we are fully satisfied from repeated observation. The general commotion of the vascular system; the violent throbbing of the vessels about the neck; the excessive palpitations of the heart; the hurried and embarrassed respiration; the frequent and *shattered pulse*, and in some instances, the intense heat of the skin, all of which are symptoms frequently observed to attend it, would seem, at first view, to call for blood-letting, and the general employment of antiphlogistics. We have more than once seen them attacked by such remedies: we have seen repeated bleeding resorted to—antimonials, cathartics, and mercurials, diligently employed; yet with the constant effect of exasperating all the symptoms. Under the same circumstances, we have seen an opposite course pursued, consisting of a combination of antiphlogistics, corroborants and alteratives, and although apparently incompatible with the general train of symptoms, they have all been speedily subdued under the use of these remedies, and health rapidly restored. But as these facts have been fully explained in the paper above referred to, we merely propose to offer here, two cases in illustration, which have fallen under our care since those remarks were published.

CASE 1. *Anæmia succeeding Intermittent Fever.*—George Purse, seaman, aged 19, was admitted into the Baltimore Infirmary, August 5th, 1834. Has been sick two months, on the voyage from New Orleans to Baltimore. Has had a chill every day at 12 o'clock, which was constantly followed by fever. His abdomen is now very much swollen, and presents evidences of visceral enlargement with effusion of water. His tongue is very pale and slightly furred; his gums almost white, and his skin bloodless, pale, transparent, and of a waxen aspect. His pulse is full, frequent, and presents a peculiar thrill; his respiration short and hurried, and his fever almost constant; there being generally a chill every day at 12 o'clock.—Bowels rather costive; cups to the abdomen; Massa, Pil. Hyd. Extract Alk. Jalap. Pulv. Rhei. ã ã gr. iij., ft. Pil. et cap. ter in die.

Aug. 6. Little or no change in his condition—cups repeated, and medicine continued.

Aug. 9. Blister to the abdomen, and medicines as before.

Aug. 10. No chill, but the fever and other symptoms not much mitigated. Blistered surface to be sprinkled with sulphate quinine, gr. x. three times a day, and skin sponged with cold water as long as it continues hot.

Aug. 13. No effect observed from the quinine.

Aug. 14. Fever somewhat less—Prussiat Ferri, gr. x. three times a day.—The alterative aperient pill at night.

Aug. 19. He had improved very much under the use of the prussiate of iron, but in consequence of imprudence in diet, the excitement has been renewed. Ol. Ricini $\frac{3}{4}$ ss.—Tinct. Digit. gutt. x. three times a day.—The iron only to be given at night.

Aug. 24. Much improved—Digitalis discontinued, and the iron to be administered three times a day—dose increased to gr. xv. Iodin. $\frac{3}{4}$ ss. Hydriod. Pot. $\frac{3}{4}$ i. Unguent. Hyd. Fort. $\frac{3}{4}$ i. m. to be rubbed upon the abdomen daily.

Sept. 10. His improvement since the last date has been rapid and steady. The bloom of health has returned to his cheeks, and he feels himself relieved of all his distressing symptoms. He still continued to take the iron in the form of the muriated tincture, as a substitute for the prussiate. *Reported by Mr. S. G. Baker.*

CASE II. Charles Winn, seaman, aged 18, was admitted into the Baltimore Infirmary, July 30th, 1834. He was born in a malarious district of North Carolina, and from his earliest youth has been annually subject to intermittent fever, until two years previous to his admission, during which time he has led a seafaring life,

The whole body at the present time is exsanguined, more or less mottled, and of a pale waxen hue. His cheeks and ankles are oedematous; the abdomen tumid; adnata of the eye of a pearly lustre; lips, gums and tongue blanched, and the latter pointed; muscles flaccid; body emaciated; digestive powers partially impaired; respiration much disturbed, the least exercise occasioning hurried and oppressed breathing, and if continued producing speedy exhaustion. The heart palpitates violently even when lying at rest, and there is tumultuous throbbing of the carotids and other large vessels about the neck. The pulse is also frequent, and presents a peculiar *shattered* thrill. The liver and spleen are perhaps enlarged, but the effusion of water into the abdomen renders it difficult to decide by exploration. Massa. Pil. Hydrarg. gr. iij. Pulv. Soc. Aloes, gr. i. Pulv. Ipecac. gr. ss. every night. Carb. Ferri, gr. x. three times a day. Generous diet with porter.

Aug. 10. The improvement of his general health has been steadily progressive. Tongue and lips slightly reddened—abdomen less tumid. The oedema of the cheeks and ankles has lessened—digestive function invigorated, and the evacuations more healthy.

Aug. 25. Still improving. Tinct. ferri muriatis substituted for the carbonate of iron. Alterative pills to be continued.

Sept. 11. All the prominent symptoms of the disease have yielded, in a great measure, to the treatment. Tongue and lips more coloured; the tumefaction of the abdomen has

entirely subsided, as has the oedema of the cheeks and ankles. The palpitations of the heart, and the excessive throbbing of the vessels are no longer perceptible. His pulse is regular and full, and he is able to bear considerable exercise without fatigue. *Reported by Mr J. C. W. Wederstrandt.—The North American Archives of Medical and Surgical Science, Edited by Dr. Geddings. October, 1834.*

—o—

Reports of Surgical Cases, with Remarks.

By N. R. Smith, Professor of Surgery in the University of Maryland.

Morbid State of the Spermatic Cord simulating Hernia.

IN June last I was requested to visit, in consultation with Drs. Warner and O'Donovan, Mr. —, a young man aged about twenty, living in Pennsylvania Avenue. I was informed by the attending gentlemen that for three days previous, he had been labouring under severe symptoms of enteritis, that had in no degree yielded to the active means which they had employed. Complete iliac passion had indeed taken place, the alvine evacuations having entirely ceased, and stercoraceous vomiting occurring at frequent intervals. The pulse was small and frequent; the extremities cold; the countenance hippocratic; the belly tumid, tense, and tender to the touch. The medical gentlemen in attendance informed me that within the last six hours they had discovered a swelling in the left inguinal region, apparently affecting the spermatic cord. All the symptoms of strangulated hernia being present, it of course immediately occurred to them that a concealed hernia had, previously existed, and that it had now become in a degree manifest by the increased tumefaction of the parts concerned. They regarded the case, however, as one of obscure and doubtful character, and such indeed I found it.

The scrotum was much enlarged, but this was manifestly an oedematous swelling. Extending from the internal ring along the course of the cord was an elongated swelling, of a firm, unyielding feel, and evidently issuing from the ring. It was sufficiently obvious that no intestine could be involved in the tumour, as the characteristic elasticity was entirely wanting. It was not so easy to determine, however, the part which the omentum bore in the case. We could not, it is true, distinguish the cord from the tumour, and we were perfectly aware that, after all, the enlargement might prove to be nothing more than one of the cords itself; but, supposing a semi-congenital sac to exist, it was manifest that a portion of omentum might have been thrust within the investing membranes of the cord, and become strangulated at the ring, or neck of the small sac. Certainly the existence of such a tumour, together with all the

symptoms of strangulated hernia, justified such a conclusion.

The patient was now so exceedingly low as to render an operation, under any circumstances, extremely doubtful in regard to its result. But as death appeared inevitable without our interference, we determined on the *remedium anceps*. We resolved to cut upon the cord, and at least to reveal the true character of the local disease.

In the presence of the attending gentlemen I executed the incision, and quickly exposed the cord. It immediately became apparent that the tumour resulted from an enlargement of the cord, caused by the infiltration of serum into the tissues which enveloped its vessels. It was manifest that the fluid had issued from the cavity of the abdomen, and percolated along the cord, even to the scrotum, giving rise to the oedema of that part. The envelopes of the cord not readily yielding to the distension, the tumour of this part became hard and cylindrical. As there evidently existed in this case a high degree of peritoneal inflammation, I inferred that effusion had taken place into the cells of the fascia propria exterior to the peritoneum. This fascia, it is hardly necessary to say, is continued along the cord, and becomes one of the proper coverings of that fasciculus of vessels and nerves, and therefore might easily convey the effused fluid from the cavity of the abdomen.

As soon as the condition of the cord was ascertained, I closed the wound, the patient having suffered but in a very slight degree from the incision. The case terminated fatally on the following night.

A post-mortem examination of the case was made by my friend, Dr. Warner, and the ordinary evidences of high enteric and peritoneal inflammation discovered.

I am at this moment in attendance on another case of peritoneal inflammation, occurring in a servant boy of my friend, Dr. Cockey. The disease was ushered in by pain in the right lumbar and iliac regions, accompanied with soft, puffy swelling above and within the spine of the ilium. This swelling, early in the attack, was elongated in the course of the cord; and the cord was the seat of considerable morbid sensibility. On one occasion the patient complained of agonizing pain in the testicle of the same side. The condition of the cord, and the presence of the swelling, immediately caused attention to be directed to the possibility of the existence of obscure ventral hernia; but a careful examination, and the history of the early progress of the case, showed clearly enough that nothing of the kind could exist.—*The North American Archives of Medical and Surgical Science*. Nov. 1834.

On the Diseases of the Natives resident on the Banks of the River Niger. By K. A. K. OLD-FIELD, F.R.G.S. Late Surgeon to the Niger Expedition, and Assistant-Surgeon to the Preston Dispensary.

THE diseases met with among the natives resident on the banks of the Niger, are numerous and severe; and from the circumstances of their not possessing any efficacious remedies, but relying principally on the virtues of charms, and drinking fetish water, great numbers annually die.

Commencing with the natives near the River Nunn, one of the numerous outlets of the majestic Niger, and the natives of the countries between there and Eboe, a distance of two hundred miles, we find the most prevalent diseases to be diarrhoea, dysentery, dracunculus, syphilis, continued and remittent fevers, rheumatism, lepra, elephantiasis, and kraw kraw (an inveterate form of tabies), the country is low and swampy, the banks covered with a profusion of shrubs and vines, the latter from seven to ten feet in height; the pernicious mangroves (*khiz of hera mangle*)* extend as high as the influence of the tide, between sixty and seventy miles; up to this distance not a bank or a piece of elevated ground is to be seen; the country is nothing but a perfect swamp, unfavourable to the existence of human life, even in a savage state; the soil then becomes alluvial; banks are met with from seven to ten feet high, which are lined with plantain tree (*Musa Paradisiaca*), the bannana tree (*Musa Sapientum*), the wild cotton tree (*Bomax Ceiba*), cocoa nut tree (*Cocos Nucifera*), sugar-cane (*Saccharum Officinavum*), palm tree (*Carica Papaya*), and a variety of indigenous grasses.

During the rainy season the banks of the river and surrounding country are frequently overflowed, the retreating waters leaving behind animal and vegetable substances in a state of decomposition, which become, under the influence of a tropical sun, but too prolific of disease and death.

The natives on the banks of the river, like the generality of men not far advanced in civilization, are of opinion that to live is to live for enjoyment alone; their nights are spent in dancing and drinking; most part of their day in sleep; they drink large quantities of spirit undiluted, which is brought to the coast of Africa in vessels trading for palm oil; the Spaniards introduce a large quantity of a very bad quality in exchange for slaves.

The natives, as far as Eboe, are notoriously filthy in their habits, which accounts for the numerous cases of scabies, and other cutaneous diseases constantly met with; their food consists of dried fish, goats and their entrails, dogs, monkeys, plantains, bannanas,

* They are never found out of salt water. —Humboldt.

capava (*jatropha janipha*), and palm oil; from the general aspect of the country, their irregularity in living, their excesses, their paucity of medicines, or the means of cure, it is not surprising to find that few of them attain old age; it was remarkable to observe so few aged men in the Eboe country, considering the vast population.

Their huts are constructed of bamboo (*Arundo Bambos*), and plastered over with mud and red clay; they sleep on mats upon the floor of the hut; no attention is paid to ventilation; the huts being without chimneys, the smoke escapes through the doorway, which, in a great measure, secures them from the annoying attacks of moschetoes.

The few following cases which came under my observation, will shew the native plan of treatment, which is combined with superstition:—

Deda, a pilot, a native of Braptown, a very intelligent black, and pilot to the river Nunn, about thirty years of age, had been labouring under phthisis for nearly three years; he was wasting away rapidly, and was in the habit of eating large quantities of capsicum baccatum (bird pepper), and using a shower-bath each morning in the following manner: one of his wives mounted on the stump of a tree five feet in height, and poured water out of a calabash upon him, repeating certain words as charms; this man died during my residence in the interior.

Lumbago is treated in the following singular manner: the patient lays himself flat upon his belly, when one of his companions jumps upon the lumbar region five or six times; this practice is repeated frequently during the day. I witnessed this novel treatment upon a black servant of mine, a native of Brass, who informed me it invariably produced a cure.

Dracunculus (or guinea worm) is much more common among the natives of the coast and the lower country, than in the interior; I have frequently met with it in the Kroumen, a useful class of men, who inhabit the Cape Palmas country; they are employed on board of English ships to procure wood and water, and perform the most laborious duties; and are rendered particularly liable to this disease. I had two cases on board the iron steamer, Alburkah; one worm which I have at present in my possession is upwards of thirty-two inches in length.

The symptoms commence with a violent itching in the part affected, heat, swelling, and inflammation; a vesicle forms, and in a few days the head of the worm protrudes; their mode of treatment is to draw the worm gently out, and secure the end round a piece of stick or lead, and gently withdraw a portion each day; this is perhaps the best mode of treatment, with the application of poultices.

At Eboe we find the country a little more elevated but still thickly wooded; the Eboes are a fine race of people, much more so than

their neighbours, occupying the towns lower down the river near the sea-side; they are tall and robust, capable of enduring great fatigue, frequently paddling large canoes for forty-eight hours without taking food. Their diet is superior to that of the natives lower down, consisting of bullocks of a small breed, fine goats, fowls, and an abundance of yams (*Dioscora Bulbifera*). In colour the Eboes are much lighter than their neighbours, many of them being of a light copper colour, their physiognomy is not very prepossessing, being that of the negro, with retreating forehead, flat nose, thick lips, &c. &c. At this place I met with two cases of elephantiasis in middle aged men; it is considered contagious by the natives; they possess no means of curing or alleviating this dreadful disease*.

The natives suffer from attacks of dysentery and intermittent fevers; the former is very prevalent; they have a great horror of this disease, as very few recover when once attacked. Anthrophagi are said to exist in the Eboe country, but I never met with authentic proofs, although from the general bad character of the Eboes we have no reason to doubt it. Syphilis is also very common among the natives, more especially those inhabiting the sea coast and lower country, from their intercourse with European seamen. At Brass town, I saw several cases in the worst forms, nodes, and loss of the soft palate of the mouth.

Leaving Eboe and proceeding to Iddah, 150 miles from the former, we find the country higher and less wooded; it assumes altogether a healthier aspect, the high grounds being cultivated with tobacco, rice, and yams. The domestic animals increase in size. Fowls, sheep, and bullocks are plentiful. The natives are well shaped, cleanly in their persons and habits, and industrious.

At Iddah, in addition to cases of febres and dysentery, I met with several cases of cataract, and two cases of lepra nigricans: the native plan of treatment in the latter disease, consists merely in washing the affected parts with river water. The unfortunate patient is taken to the river side, and the ulcerated surfaces are washed. Judging from their

* When I accompanied the late Mr. Richard Lander in an open boat, nearly four hundred miles up the Niger, I had occasion to go to the king at Eboe (Obie) at three o'clock in the morning; poor Lander was then labouring under a dreadful attack of dysentery, which nearly carried him off; this being known to Obie, he addressed me through an interpreter to the following effect: "you be ezofu (doctor) for my friend, he sick for belly, no good," shaking his head; "man sick for belly, he die; go for ship, no stay; suppose my friend die while you are here, it will be my fault, for detaining you, I kill him! go, go;" such is their dread of being belly-sick as they term it.

distressing cries, the application must be extremely painful: one of the cases above alluded to was a young female slave about eleven years of age; she was brought down to the river side for the purpose of being washed, morning and evening, for several months; her cries at these times were truly distressing: lepra is considered by the natives to be contagious, and so great is their horror of persons afflicted with this dreadful disease, that they are not allowed to mix in society, and too frequently are thrown into the river as a sacrifice to the river god. Such is their deplorable state of ignorance, that the weak with the sickly are thrown into the river to appease their offended deity.

In all diseases great power is shown by charms written by the Mallams or Mahomedan priests, consisting of extracts from the Koran, written on paper with ink made of burnt wood; the letters are washed off the paper into a calabash and drank by the patient; this is termed fetish water. As we advanced into the higher and mountainous country, as might be expected we met with fewer cases of febrile and dysentery, but as if a recompense for this diminution, ophthalmia and cataract prevailed to a fearful extent amongst those natives who inhabited the temporary huts built on sandbanks, on the falling of the river. The prevalence of these diseases arises most probably from the reflection of the rays of the sun from the sand.

At Egga I was applied to by hundreds suffering from cataract and ophthalmia; at Leyber, a small town at the foot of a mountain, forming one of that magnificent range named the Kong mountains. I was applied to by a young female, Oct. 22nd, the widow of a wealthy trader; she was suffering from inflammation of the cornea of the left eye, and inflammation of the coats of the right eye, accompanied with severe cephalalgia; the disease made its appearance five months prior to my seeing her; I expressed a wish to have her on board the ship for a short time, which was instantly complied with, so great was the confidence of these people in us. Their diet being simply yams and fish, only the higher orders being suffered to eat animal food, they do not bear much depletion; eight ounces of blood was taken from the arm; she was twice cupped at the back of the neck, blisters were applied to the back of each ear, and she was ordered to take the following pills. Pulv. Opii gr. iv. Hydrag. Submur. gr. xij. Confect. q. s. ft. pilulæ xij. Sumat j. tertiis horis; these pills were given until pyliasm was produced. This treatment proved very beneficial, the inflammation subsided, and in a short time she recovered the vision of the right eye, and the ulceration of the cornea was much diminished in size; after remaining until sufficiently recovered, she returned to her friends, bestowing (alburkahs), "blessings" for our kindness.

I am not aware that they use any remedial measures for the cure of ophthalmia; but judging from the numerous cases of blindness, I should suppose not.

For cephalalgia the natives scarify the temples with a large knife, and pinch the skin of the forehead with the fingers, each time cracking their fingers, as they state to extract or draw the pain away.

For some time I was of opinion that syphilis was principally confined to the sea coast, and the lower part of the river; but after a short residence in the countries of the interior, I met with several unfortunate creatures as bad as those I had seen at Brass.

The following case will shew the extent this disease attains when unchecked by art. Idiresa formerly King of the Nufic country, but at that time of only part of it, the rest of it being subject to the Felatahs, applied to me on board the Alburka at Egga, nearly six hundred miles up the Niger (the late Mr. Lander being the interpreter), and from his statement it was supposed to be a case of hæmorrhoids; but feeling dissatisfied and suspicious of the statement given, I requested an examination. His sable majesty attended on the following day for that purpose. I found it to be a case of syphilis of two years' standing, accompanied with secondary symptoms; he had a phagedenic ulcer of the penis, which was destroyed to the extent of two inches, surrounded with a large cauliflower excrescence; cicatrices in the groins from buboes, copper coloured eruptions, but in a much severer form than I had ever witnessed. Pains in the bones, deglutition difficult and painful, from two circular ulcers of the fauces, loss of appetite, restless nights, &c. He stated that one of his wives had communicated it to him two years before, and had died from its effects. Idiresa was a fine looking man about five feet nine inches in height, rather stout and marked with the small-pox; he wore a constant smile upon his countenance; his manners were mild and dignified, and very prepossessing. He was ordered to take the Compound Decoct. Sarsæ,* three times a day, pil. Plummer each night, and to use the black wash; he regularly sent for his medicines, during our stay in the country; I had not another opportunity of seeing him. A few months afterwards, during my stay at the confluence of the Ichadda, upwards of two hundred miles from his country, he sent a messenger, with a present of an elephant's tooth. He informed me that Idiresa was perfectly recovered, and regularly took horse exercise.

A slave of the principal Mallams came on board one morning having an encysted tumour on the os frontis, although he merely came on board like others from motives of

* I very fortunately had by me two bottles of Butler's of Liverpool's Essence of Sarsaparilla.

curiosity; he was asked if he would like to have it removed; he immediately consented, and with the assistance of my friend Lieut. Allen, it was removed without appearing to give much pain; the operation was viewed by the natives as something supernatural, and procured us an abundance of provisions, goats, &c.; and from the aged Mallam, the man's master, a remarkably fine carrier bullock.

During my stay here and in other parts of Africa (like Dr. Oudney) I was importuned for charms, medicines &c. possessing the power of removing sterility and barrenness.

The natives of the Nufic country attain a good old age; we met with several very aged people, said to be upwards of eighty years.

From Egga we got under weigh for Rabbah, and proceeded through the Nufic country, abounding in beautiful scenery, diversified with hill and dale, and anchored abreast of the city of Rabbah, in possession of the Felatahs, and tributary to the Sultan of Sockatoo; here we went ashore, to reside a short time, while the ship underwent repairs, &c. We engaged three horses belonging to the Sullikeen Doorkie (the master of the horse): the houses were built of mud, one story high, and very cool, situated in a large yard surrounded by a high mud wall. It is impossible to describe the scene at this place, the yard in a morning being filled with applicants; natives of different countries flocked for relief—Moors, Arabs, Mahomedans, Nufians, Yarribians, Timbuctoans, and natives of Housa—all sought us, to be relieved by our remedies.

The most prevalent diseases which came under my observation were large ulcers from the bites of moschetoës, diarrhœa, dysentery, variola, ophthalmia, and cataract; the farther we advanced into the interior, the more common we found cataract; at Rabbah I saw several hundred cases of double cataract: most of the natives were willing to undergo the operation; as we were not making a sufficient stay, it was not attempted. It was quite distressing to witness so many fine men and women totally blind, led into the yard daily; it is more common among males than females; the Arabs and merchants who cross the desert of Sahara are particularly liable to this disease; it is perhaps necessary to notice the practice of anointing the tarsi with sulphuret of antimony (toza), a custom which is supposed to beautify the countenance, and soften the appearance of the eye, prevalent among all classes, Pagans and Mahomedans, from infancy; may this be one cause? The period of our visit being in the rainy season, dysentery was very prevalent; the natives use large quantities of rice water, the astringent qualities of which appeared to give them great relief; the rice is of a superior kind, but badly cleaned, and forms the chief article of food in this part of the country.

I have before noticed the difference in the ages of the natives inhabiting the low and swampy country, and the fine open Nufic country; during our stay at this place (which is within a short distance of Borsa, where the unfortunate and intrepid Mungo Parke, surgeon, perished), Mallam Dando, formerly King of Rabbah, died; he was said to be one hundred and fifteen rivers old*; we had visited Mallam Dando a few days prior to his decease: he was a very old looking man, and very thin, with a long grey beard, and appeared to be in his second childhood; the natives imputed his death to my agency, by blowing magony (medicine) through the door of his house!!

I met with one case of phthisis in an Arab named Ali, one of the traders of Al Hadge Sali, the agent of the late Captain Clapperton at Kano. He had caught cold two years before, when on his journey across the desert of Sahara from Tripoli, with a large kofila†.

The natives of Rabbah and the neighbouring towns and villages high up the river, more especially where Mahomedanism prevails, are very cleanly in their habits, performing their ablutions twice a day; there were very few cases of cutaneous diseases among them.

The native women besmear their bodies with a red pigment made from red wood, brought from the Eboë country; it is supposed to possess tonic properties as well as to correct the fœtor of perspiration.‡

They attain puberty at eight and nine years of age; menstruation commences at this period; in several cases that came under my observation, the catameneia appeared every three weeks, from the seventeenth to the twenty first day, the females being in the enjoyment of perfect health. On my expressing my surprise to a very intelligent Fundah' woman, she assured me it was the usual time—that very few had them absent a moon (month); the quantity menstruated is small, and continues three or four days.§

* The Pagans calculate their hours by the position of the sun in the heavens, their months by moons, and their years by the annual rise of the river.

† A number of merchants with camels and merchandize.

‡ A full account of their manners and customs, with an account of the expedition will shortly be published.

§ Polygamy is carried to an incredible extent in western Africa. Lander has repeatedly informed me the number of the King of Boosa's wives exceed three thousand! It must be borne in mind, that the wives are the most extensive merchants or traders in the country, and therefore a source of profit. Vide the forthcoming Journal.

Parke correctly says, the negro women suckle their children until they are able to walk of themselves; three years' nursing is not uncommon, and during this period the husband devotes his whole attention to his other wives. To this practice it is owing, I presume, that the family of each wife is seldom very numerous.

Kraw kraw, is an inveterate form of psora; it was epidemic on board the the Quorra and Alburkah; the blacks suffered severely from it; the case of my esteemed friend Mr. Laird was very severe. After the decease of his valuable friend Dr. Buggs (in whose death science has suffered a great loss), and of nearly all the officers and men, he went to Fundah in a weak state of health, in appearance more like a walking skeleton than a living being.

While there he caught this distressing disease; he remained there more dead than alive for some time. Shortly after his return to the ship, I saw him; the disease had produced large ulcers all over the body, more particularly on the head, back, and left femur the latter being denuded to the extent of two inches; the irritation from these numerous sores occasioned great excitement. The vapour bath* and friction with the unguisulphuris relieved him wonderfully in a few days, the ulcerated parts being dressed with adhesive plaster.

Mr. Laird was one of the very few survivors of the expedition, (reduced, subsequently to four), who lived to return to his native country, which he reached twelve months prior to my arrival, and is, I am happy to state, at present in the enjoyment of perfect health.

—o—

The London Medical

AND

Surgical Journal.

Saturday, October 24th, 1835.

SOCIETY FOR THE RELIEF OF THE
WIDOWS AND ORPHANS OF MEDICAL MEN.

ON Wednesday last there was a meeting of the Society for the Relief of the Widows and Orphans of Medical Men in London and its Vicinity. This Society was instituted in 1788, and has been much indebted to the patronage and assistance of the late Duke of York, and the Duke of Sussex. According

* I would strongly recommend the portable vapour bath to be taken on board every ship going to the coast of Africa, having experienced great benefit from it, and witnessed its good effects in many instances.

to its present regulations, the annual allowance to widows is 30*l.*, to which they are entitled if their yearly income do not exceed 50*l.* Children under the age of fourteen are allowed 10*l.* a year, from which an income not exceeding 12*l.* from other sources does not exclude them. When they have completed their fourteenth year, they may be further assisted by a contribution towards an apprentice fee. Orphans who have less than 25*l.* a year, and also the mothers and sisters of deceased members, can claim the assistance of the Society. The annual subscription is only two guineas; yet it is truly extraordinary, as observed by Sir James Macgregor, who presided at the last meeting, that not one fourth of the medical practitioners in London are members of this most excellent association!

The poverty of the medical profession is proverbial, and it is impossible to contemplate, without emotion, the life of care and anxiety which is entailed on too many of its most meritorious members, by the inadequacy of their pecuniary means to meet expenses which the present state of society in this country obliges them to incur; but it is still more melancholy to witness the state of destitution in which their families are often left by their death: ladies of cultivated minds and refined manners are suddenly immersed in the most abject and hopeless poverty, and reduced to beg, for themselves and their children, that aid which the members of the profession on which they have most claim, are generally in no condition to afford them. And what are the causes of this miserable state of things? They are manifold. Bad legislation is one of them. Know ye aught of the matter, men of Lincoln's Inn? Have ye not monopolised for yourselves, and your creatures, the means by which youthful talent may make itself known to the world? Have ye not turned the medical charities of this metropolis into

nests for your own cupidity to fatten in? Have ye not refused to interfere in behalf of the College whose ostensible heads ye are, to obtain for its members an equitable remuneration for their toil; and have ye not connived at, nay assisted, the sneaking artifices of the Rhabarbarians to soil the whole profession with their filthy jalap, and to leave the general practitioner no alternative but the pestle or starvation? Verily ye have done all this; and what is the result? The general practitioner, shut out from all professional means of advancement, is forced to seek his subsistence by trade, and the hybrid character thus thrust upon him acts doubly to his prejudice: considered as a tradesman, he is prevented from seizing his advantage, or enforcing his claim, by the "liberality" of his *profession*; considered as a professional man, he is lowered in the public estimation by his connexion with *trade*; so that he is left to choose between the benefits of a sordid reputation, and those of an empty purse; it would puzzle the arch fiend himself to invent a more vexatious dilemma than that in which the treachery of the men of Lincoln's Inn has placed their well-beloved brethren!

Another way in which bad legislation impoverishes the profession, is by allowing quacks and impostors to trespass with impunity on the field of medical practice; on this subject, however, we have so lately delivered our opinion, that there is no necessity for enlarging upon it here.

Independently of bad legislation, a fertile source of wretchedness to the profession is to be found in the prevailing sin, and the prevailing curse of this country—the lowest of low passions, the love of ostentation. In France, a medical man, if he be poor, may live according to his means, without forfeiting the respect of his fellow men; he may live in a garret, if he likes, till the exercise of his talents enables him to enter a better domicile; but in this land of free bodies and enslaved minds, the young

medical practitioner is absolutely compelled to incur an expenditure which he knows not how to meet; he must act the part of a knave as well as a fool, if he would not experience the contempt of many, and the neglect of all. Unfortunately this evil bears on men of other vocations besides our own, though certainly not so heavily: it is a universal and most pernicious humbug, pervading every class in England, from the highest to the lowest, and may happen, one day, to go down with a crash that will shake society to its foundations.

Such are the chief causes of the poverty under which so many of our brethren are at this moment labouring. These causes will not endure for ever; the ground is even now crumbling under the feet of the medical oligarchs, and the spirit of ostentation will fade before the progress of civilization, and the dictates of necessity; but in the meanwhile, hundreds of respectable families are rendered miserable by their influence, and whatever tends to circumscribe their effects, ought to meet with the cordial co-operation of the profession. Not only ought the society to which we have alluded to be generally supported by the medical practitioners of the metropolis, but efforts should be made to extend the benefits of this, or similar associations, to every part of the kingdom. Our profession has yet to learn the great truth, "that self-love and social are the same;" its recognition would give birth to a thousand noble and useful institutions.

—o—

THE LONDON UNIVERSITY—SLIMINGS OF THE LIZARD.

THE Green Lizard has sent forth some more slime against the London University, and has seasoned its ordinary vapiditv with a great deal of course personality against Mr. Tooke. If it were not that Mr. Tooke is a gentleman of established character, we should suppose that he had paid the reptile for abusing him, since, to incur the censure

of our high-minded contemporary is in itself an indirect testimonial of respectability: when we were in a less palmy state than we now are, we had ourselves some thoughts of hiring the Lizard to vilify us. We will not at present enter into the history of the University, which is abundantly familiar to everybody, and with the oft-repeated details of which the Lizard is everlastingly boring its readers, or rather load its pages—for its readers, we believe, are now reduced to ninety or a hundred superannuated practitioners, too stupid to be bored with anything. The true cause of our contemporary's hatred to the University is to be found in the following singular facts.

A temple has lately been reared at Hyde Park corner, to a medical deity, of whom all we know with any certainty is that he is neither Apollo, Hermes, Trismegistus, nor Æsculapius. This new divinity has, like Caligula, become high priest to himself; he is not, however, a Roman, but an Egyptian god, as sufficiently manifested by his love of darkness and mystery. Our green contemporary has managed, by a judicious mixture of bullying and cringing, to get itself installed as chief of the sacred crocodiles in the temple; and a great shame it is that a puny little reptile like itself, which has not the smallest pretensions to rank with real, proper crocodiles, should be thus favoured, when so many good lusty saurians are floundering about and weeping because they cannot get admitted in any capacity. Now, the aversion of our contemporary to the London University arises from his perceiving, pretty clearly, that it is one of those centres from which the light of intelligence will soon spread far and wide, penetrating the gloom of Egyptian temples, disconcerting the complacency of self-constituted divinities, and blazing in the small dim eyes of favourite reptiles till they are feign to hide themselves from the face of day for ever more.

The Lizard may slime as much as it likes, but the London University will yet obtain a charter; it will become the means of conferring incalculable advantages on the youth of England; it will stand and flourish when Oxford and Cambridge are in the dust; and for aught we know, the carcase of the Green Lizard may some day or other be stuck up

in its museum, to show what "delicate monsters" the world has produced!

—o—

ELECTION OF RESIDENT MEDICAL
OFFICER TO CHRIST'S HOSPITAL.

THE election for resident medical officer to that munificent institution, Christ's Hospital, is to take place on Friday, the 23rd inst. on which day we conjure the governors to discharge their duty conscientiously, by selecting the best qualified candidate for the appointment. The office of resident surgeon to Christ's Hospital is one of great responsibility; as to him is intrusted the health of the sons of our once opulent fellow-citizens, who have hitherto been sadly neglected, and most of them allowed to become sufferers from scalled head, a disease which has prevailed in the noble institution just mentioned a great many years past.

It appears from incontrovertible evidence, that the children, for several years, admitted into the branch establishment at Hertford, have been infected with the disease called ring-worm, from those who have been received before them. The evil resulting from this is, that their education has been impeded and rendered imperfect, as the contaminated have been, and are separated from the school, and subjected to some kind of medical treatment, which has never been sufficient to eradicate the malady.

The governors are now to choose a surgeon, and they are to elect the most experienced in the treatment of ring-worm, which has long marred the benefits of one of our best institutions; and they are morally bound to select the individual, whoever he may be, who can produce the best and most ample evidence of his skill in curing that disease. Were it in our power to address each governor individually, and say to him, "Sir, your duty to society is to vote for the candidate best qualified by long and careful observation, and successful treatment of scalled head," such elector would feel offended at our appeal to his humanity: though we grieve to indite it, there are some of the governors supporting persons whose names are unknown to the medical public in this capacity—we understand, some of whom are still in, and others have just emerged from

their pupillage!!! On looking over the list of candidates, there is not one of them, except Mr. Plumbe, who has ever distinguished himself in treating or describing diseases of the skin; and we beg to inquire, what claims or pretensions have they to the office of resident surgeon to a large establishment, in which cutaneous diseases predominate.

We reply, none whatever; and certain are we, that if the election rested with our profession, not one of them could have the slightest chance of success. We therefore contend that the governors of Christ's Hospital will, in our opinion, be guilty of a gross dereliction of duty, if they do not elect the gentleman who has devoted most years to the study and treatment of cutaneous diseases, one of the best living writers on the subject, and the best author on the identical disease which has so wrongly deteriorated the good of the institution in question. Plumbe's works on diseases of the skin, and on porrigo are known throughout the civilized world; and we boldly inquire, is their author to be passed over, and some inexperienced person elected in preference, by the governors of Christ's Hospital? Impossible! They will, we are certain, adopt the axiom "*detur digniori*," elect the more worthy, and never have it recorded, in 1835, that they, as the aldermen of London, would be capable of jobbing so important an appointment as that under consideration, and deprive the unfortunate children of their fellow citizens, placed by adversity under their care, of the best medical advice that can be procured.

In making these remarks, we need scarcely observe to our readers, or the medical profession, that we act as we have hitherto done, and ever shall do, on the principle that our hospitals and all charitable institutions ought to have the best medical aid that the country affords, and that medical appointments ought not to be filled through the corrupt source of private interest, family, and other connexions, open bribery by vote making, or the many other unworthy means of the grossest jobbing, to the incalculable injury of the children of poverty and misfortune. Our readers also know, from a careful observance of our principles for some years, that we have never allowed

any thing to influence our honest opinion of individuals or public institutions; and we make this observation lest it might be supposed that we would favour Mr. Plumbe, more than any one equally well qualified. We need not state that we should as readily advocate the claims of any one of the candidates, or of any member of our profession, whom we conscientiously believed to be most worthy of election, and most certain of improving and preserving the health of the children, and promoting the truly benevolent views of the founders of Christ's Hospital.

The following facts must convince every honest and really humane governor, of the superior claims of Mr. Plumbe, to those of the other candidates for the vacant office.

"Sir—I take the liberty of earnestly requesting your attention to the matter of the following petition, and to the testimonials I have deposited at the counting-house of Christ's Hospital. I am unassisted, to the best of my belief, by any private influence whatever, and therefore throw myself on the unbiassed opinions of the governors at large.

"I, am, Sir,

"Very respectfully and obediently, yours,
"S. PLUMBE.

"N.B. The election takes place October 23rd, 1835, at Christ's Hospital.

"To the right worshipful the president, the worshipful the treasurer, and governors of Christ's Hospital,

"The petition of Samuel Plumbe, Surgeon, of Southampton-street, Bloomsbury, to be appointed resident medical attendant of the hospital;

"Sheweth—That your petitioner was applied to in or about the month of June, 1834, by a special committee of governors, through their chairman; the object of which committee was to inquire into 'the efficiency of the medical establishment generally, and particularly as to the cause of the prevalence of ring-worm among the children;' and that that committee sought your petitioner's assistance and advice, although every member of it was utter strangers to him; and that he, your petitioner, declined and refused to give his assistance or opinion except in conjunction with the medical officers of the institution, and only consented to do so at last, because an opportunity for consultation did not occur.

"That your petitioner, having been thus led to interest himself in the health of the children, without the advantages of consultations with their usual medical attendants, recommended to the said committee a free allowance of vegetables to the children at each establishment, and that his recommen-

dation, handed by him to the said committee, was forwarded to the general court of governors, and by them acted on without delay; and your petitioner is confident that the health of the children in consequence has been materially improved.

"That your petitioner, having for many years assiduously studied 'the nature and treatment of DISEASES OF THE SKIN AND SCALP, because he found them, on entering on the practice of his profession, the least known of all diseases, owes, as he believes, to the reputation he has thus attained, the application of the committee alluded to for his assistance. He is the more sanguine in his hope that this is the fact, because he was flattered ten years ago by the award of the Jacksonian prize of the Royal College of Surgeons on this subject, and because his work, an octavo volume of 500 pages, has gone through three editions, with the general approbation of the medical profession.

"That your petitioner's claims on your consideration do not rest solely on the above-mentioned works, but that on the contrary he is able to prove to you, that he has given vast time and attention to the merits and demerits of vaccination, by laying before you a work, in the execution of which he has incurred much labour, and great expense.

"That he held the office, for several years, of senior surgeon to the Royal Metropolitan Infirmary for children, in which the cases of several thousands of children were brought under his care from year to year; and that for ten years he discharged the whole duties of surgeon and medical superintendent of the parochial infirmary of St. Giles in the Fields and St. George Bloomsbury, to the entire satisfaction of the vestry; and that in this latter institution there were seldom less than one thousand persons, many of them diseased, few in perfect health.

"Your petitioner respectfully solicits the attention of your honourable court to the above facts; and in justice to himself, and for the better information of your honourable court, he disclaims being a party to, or having a foreknowledge of, any publications in any way relating to Christ's Hospital, except such as have his name affixed, and in none of which has he ever used disrespectful language towards any member of that court, but in all has confined himself to the temperate advocacy, as a member of the medical profession, of his conscientious opinions, having no object in view except such as is common to every individual governor, namely, the good of the institution.

"That your petitioner finds himself labouring under great disadvantages on account of his confidence in the effect of his testimonials. Having passed his fortieth year, and with some claims to reputation in his profession, it appeared to him that the testimonials of teachers in different schools, (*always attainable, as a matter of*

course, by their pupils, where common industry only had been evinced) were not necessary, but that your honourable court would regard such as he laid before it, inasmuch as they proved his possession of the advantages of lengthened experience in all kinds of diseases, and his claims to the merit of improving the knowledge of that class, the prevalence of which has so much impeded the primary and vital objects of the institution, would have obtained for him higher consideration; and he was the more confirmed in that opinion, on seeing that, of the number of the certifiers themselves, few were his seniors in the profession, many his contemporaries as students, and many his juniors: there are several, he also perceives, whose names are almost unknown in medical science, and he is apprehensive that such testimonials may be considered by a few governors as deserving more influence, and to be of more value than the evidence of hard-earned reputation.

"Your petitioner further most respectfully (and disclaiming all intention to give to any personal offence), submits to your honourable court the indisputable fact, that two gentlemen whose signatures are affixed to a large number of the testimonials of his opposing candidates, were themselves his opponents in opinion, when his services were required for the hospital last year—that *their opinions were not acted on*, and that his, your petitioner's were.

"Your petitioner, in deference to the opinion of the governors, submits the following fragment, almost the last remaining, of his early testimonials!—

"I hereby certify, that Mr. Samuel Plumbe has attended my lectures, at St. Thomas's Hospital, and my practice at Guy's, for the last two years, with the utmost possible diligence and attention, and that he is highly entitled by his talents, and attainments, to the appointment he solicits.

"ASTLEY COOPER.

Guy's Hospital, 1826.

"Your petitioner begs to state, that the appointment to which the above certificate refers, was that of surgeon of a ship in the Honourable East India Company's service, the owner of which was J. W. Buckle, Esq. a member of your honourable court, whose good opinion your petitioner still retains, and of whose support at the forthcoming election he is fully assured.

"And your petitioner, as in duty bound, will ever pray, &c.

"Dated October 14th. 1835."

"P.S.—Since the above has been penned, the writer has obtained the best authority for stating, that the committee, as regards the selection of any individual candidate, was 'not a unanimous, but a divided committee,' each governor being thus called on to exercise *his own judgment* and discrimination. The writer therefore submits the foregoing facts, with renewed confidence. Aware, to

a great extent, of the participation on the part of many governors, in sentiments which have appeared in print, to the effect that the power of extermination of the contagious diseases alluded to, and the *accomplishment* of that object, ought to be the chief tenure by which your medical attendant should hold his office, he fearlessly and faithfully repeats the pledge he has before given. Advisedly and deliberately, with a professional reputation to lose, and a young and increasing family to support, dependent, in a great degree, on that reputation, he again declares, that at the expiration of one year, if the ringworm or other contagious disease remain, to the detriment of the children's education, he will resign his office, without waiting to be called on, into the hands of the governors, that they may avail themselves of such other assistance as they may think desirable."

We cannot entertain the idea that the governors, after this pledge, will fail to do their duty. Promises made under false representations, or in ignorance of merit, are not to be kept. Christian charity requires that every one of them should do his duty. Eight hundred friendless orphans look to them for health, as well as education and support; and the public demands justice at their hands. It will afford us sincere pleasure to put on record, for the information of our European and American contemporaries, that there is at least one of our hospitals in which merit is rewarded, and is preferred to incompetency, though fostered by private influence, family and other connexions; and and that the guardians of our public charities have at length adopted the just maxim—*"Palnam qui meruit, ferat."*

—o—

Hospital Reports.

—

WESTMINSTER HOSPITAL.

—

Stricture of Urethra—Calculus.

WILLIAM UNDERHILL, aged seventeen, was admitted April 29th, into Northumberland Ward, under the care of Mr. Guthrie. He is of a delicate complexion, and ruddy, a butcher by employment.

Four or five months ago, he first experienced a difficulty in making water, which now and then amounted almost to retention, and which gradually increased; at the same time he noticed a pain in the glans penis. He applied to Mr. Houlton for relief, who passed instruments, which he says did him great good. He states, that when the instrument was used, it could be distinguished passing over an obstruction, "when it got just above the testicles." Having left town,

he applied to a gentleman in the neighbourhood, who endeavoured to pass both catheters and bougies, but without success. On the occasion of the last attempt, a good deal of bleeding was occasioned, which in the afternoon was followed by the discharge of a "bloody matter," and which, from the boy's description, would appear to have been a mixture of blood and pus. This took place a week before his admission.

No adequate cause can be discovered for the production of the impediment in the urethra. He denies ever having had gonorrhœa or any syphilitic affection. Four years ago he fell across the side of a cart, and cut the glans penis and prepuce, the cicatrix of which now remains; but it does not appear that this has any connexion with the present symptoms. He has frequently hurt the perineum and penis by falls on the pommel of the saddle, &c., in riding, after which he has sometimes noticed small swellings in this situation, but he does not recollect there being one when he had the last catheter passed. His general health and appetite are good.

At the time of his admission, a catheter was passed, and the bladder evacuated, though not without some difficulty, from the obstruction in the urethra, as well as from its extreme irritability. His bowels being in a costive state, he has been directed to take a dose of the house medicine.

13th.—He has had at times great pain in the glans penis, and along its under surface, so as frequently to disturb his night's rest. The urethra is in so irritable a state, as hitherto to have altogether precluded the employment of any instrument to examine that canal, or to sound the bladder.

Rx. Ext. hyoscin. gr. xxxj;

Liq. potassæ. 5j;

Mist. camphoræ. ʒ viii, m. c. c. ji. t. d.

June 25.—Since the last report, he has, on the whole, continued much the same, until within a few days, since which he has obviously been worse. Several attempts have been made at introducing instruments, without success, except on one occasion, when a false passage was discovered in the membranous part of the urethra; the instrument being readily distinguishable in this situation, by the finger passed into the rectum. A mixture of pus and urine escaped through the catheter when it had reached this point. It seems that ever since his admission, he has passed a little blood mixed with his urine; but the most severe pain which he experiences, is in expelling the last drops; and that after this he has for a time comparative ease. During the last two or three days, however, he has almost constantly complained of excessive pain in the glans penis, and in its under surface, which is much aggravated by an extended state of the body, as in the erect or recumbent positions. A posture which he frequently assumes; is hence that on his knees

bending over a vessel, into which he passes, guttatum, a little bloody urine.

July 18th. Mr. Thomson endeavoured to day to pass a catheter, but without success, so irritable was the urethra; a warm bath was ordered him, which gave him some relief.

2nd. Considerable constitutional disturbance, indicated by the state of tongue and pulse, and the appearance of the countenance, has set in. Another bath was directed, and the following pills:

R. Ext. hyosciam. ʒj;

Saponis duri ʒij;

Sodæ carbonatis, ʒj. m.

Ft. pill. xxiv. Capt. iij. ter die.

4th. The distressing pain of which he complained so much, has been a good deal relieved since he has been employing the bath and taking the pills; he has, however, a good deal of it during the night.

11th. He passes his urine in a freer stream, and the pain, which remains in the same situation, rather to the right side of the under surface of the penis, is likewise less severe. The urine now dribbles away constantly.

R. Ol. ricini, ʒij;

Tinct. opii, ʒ vj;

Tinct. cardam. co. ʒj;

Aquæ cinnam. ʒ ss.

Ft. haust. p. r. n. sumend.

R. Morphia acetat., gr. ss.

Ft. pill. o. n. sumend.

28th. Mr. Guthrie to-day, with a good deal of difficulty, passed a catheter into the bladder, considerable obstruction having to be overcome, from a thickening of the under surface of the urethra, just within the scrotum. From this examination, Mr. Guthrie stated, that the opening of the false passage in the urethra, exists just in front of the triangular ligament, from which point it runs for some distance along the right side of the urethra. Upon the instrument entering the bladder, a little bloody urine was evacuated.

August 4th. Mr. Guthrie again passed the catheter, and evacuated a few drops of urine from the bladder. A shock was felt, as from a small calculus, on the instrument gaining the neck of the bladder. The boy looks better, and states himself to feel so to-day.

14th. General health and appearance improved, but he complains of pain in the region of the bladder, and tenderness, aggravated by passing his motions, &c.

28th. A small quantity of sabulous matter was passed, of a "soft and pasty character, and probably consisting of the double phosphate of magnesia and ammonia." The urine was also bloody.

29th. Goes on much the same. The urine continues bloody, and presents usually a deposit of pus, as well as of the amorphous calculus matter.

Omitt. pilul. alkal. n.

R. Ext. hyosciami, gr. iij;

Ft. pil. ter die, sumend.

September 1st. Leaves the hospital to-morrow, intending to return in a few weeks, after he has had a little change of air.

Serere Case of "Pott's Fracture;" Recovery without Anchylosis.

John Harper, aged forty-five, was admitted June 6, into Northumberland Ward, under the care of Mr. Lynn. He had been driving a phaeton to the coachmakers, and the horses taking fright and running away, he jumped out of the vehicle, and alighted on the inside of the right ankle, the foot being completely everted. In this way the fibula was broken, and the foot completely dislocated outwards, constituting the case generally known under the name of Pott's, but in addition, the inner malleolus was likewise fractured. There was not, however, notwithstanding the severity and extent of the injury, any wound of the integuments. Very extensive inflammation and tumefaction supervened, which precluded the employment of means for the reduction of the fracture. The treatment was hence restricted to the use of ordinary antiphlogistic means.

10th. Ten leeches were applied, which were useful in reducing the inflammation.

14th. To day Mr. Lynn reduced the fracture and dislocation, and placed the leg in the extended position, supported with "junks" on either side. In effecting the reduction, he noticed that the portion of tibia was quite separated from the body of that bone, and he afterwards expressed some doubts as to its perfect co-aptation.

16th. The inflamed and ecchymosed integuments over the inner malleolus, has become the seat of a sloughing sore, from which there is a discharge of nasty matter; the sore has a livid circumference, and there is a good deal of erythema proceeding up the leg. The piece of loose bone is felt immediately under the skin. There is a good deal of feverish irritability; the countenance is sunken and anxious.

R. Mist. diaphoret. ʒ viij;

Capt. ʒ j. ter in die.

It was agitated whether the better practice would not be to amputate at once, considering the peculiar difficulties of the case, especially as the habit of the patient was far from strong. Mr. Hale Thomson supported the affirmative of this question, but Mr. Lynn decided upon waiting the result of a few days.

18th. The patient is much the same, and the sore presents a similar appearance.

R. Ammonia carbon. ʒ ss;

Liq. ammonia acet. ʒ iss;

Mist. camphoræ ʒ viiss. M.

Capt. cochl. ij ter die.

Let him also have beef tea of double strength, and an egg, in addition to the usual low diet.

20th. Pulse 96, soft; the countenance is less sunken and anxious, and he eats his chop with a relish. The slough has separated, and

the bone is found very loose below, and will evidently be soon cast off. Mr. White, Mr. Lynn, and Mr. Thomson consulted on the case, when the former expressed his opinion, that at present there was nothing sufficiently urgent in the symptoms to warrant amputation, and he expressed the sentiment that it was more than possible that the leg might be preserved for the patient.

23rd. Pulse 100, feeble; countenance less anxious and sunken; tongue covered with a thick white fur; appetite pretty good. The bone has not yet separated, but is very loose, being only covered by sloughy ligaments.

Cont. medicamenta.

25th. Seems improved as respects the general health; countenance is less sunken; pulse 112 and full.

27th. Appetite improves. Let him have two mutton chops and four ounces of brandy daily.

29th. Not so well; an unhealthy looking, erythematous inflammation has set in in the skin around the sore, which has a livid character, and is creeping up the leg. There is a good deal of puffiness and pain about the ankle joint, and the sore has a very unhealthy appearance, being a fungous-like mass, protruding through the skin, and secreting a good deal of sanious-like pus, which has a most offensive smell. The countenance has a more anxious character; pulse 100, sharp and thready; has been sick after taking the mixture.

July 2nd. The cutaneous inflammation has a good deal subsided, except about the joint, where there is much swelling and redness; the discharge from the sore has less of a sanious character. General health appears somewhat improved; appetite is better.

4th. The inflammation, which was first observed around the ankle on the 29th ult., has terminated in suppuration. An incision was made above the joint between the tibia and fibula, which gave exit to a quantity of grey ichorous-like matter, which had been burrowing in the inter-muscular cellular tissue of the front of the leg. Another incision was also made over the outer malleolus, some suppuration having likewise occurred in that situation. The large fungous sore, in the situation of the broken malleolus, which it surrounds, continues in much the same state. The man continues much better than could have been expected from the severe and extensive nature of the local mischief; he is looking even better; his appetite is good; tongue clean; pulse 96, pretty full.

9th. The sore discharges a less ichorous and much more healthy pus; some inflammation is still going on in the front of the leg; but he is much better, as far as the countenance and appetite indicate.

11th. To day Mr. Lynn removed the dead piece of bone, by dividing some of the ligamentous fibres which connected it to the shaft of the tibia, and which had not sloughed. It

was found to consist of the whole of the malleolus, with the greater part of the articulating surface of the tibia, obliquely fractured. The operation gave him a great deal of pain, to the irritation of which he appears morbidly sensible. The inflammation about the leg is a good deal subdued, and the matter discharged assumes a more healthy appearance, becoming, at the same time, less abundant. Pulse 96, rather feeble.

14th. Not so well. On the evening of the 12th he began to have feverish symptoms, and since that time he has been very poorly; he lost his appetite, the tongue became furred and tremulous, and pulse small and frequent. At the present time he has great thirst, pulse is 144, feeble; bowels are open. The leg looks very irritable; a large fungus-like sore projects at the inner ankle, covered with large pallid unhealthy-looking granulations, and having in its centre some sloughy ligaments. There is a deep red erythematous-like blush, extending up the leg, two thirds of the way to the knee. Upon pressing in the inter-osseous space, on the front of the leg, a quantity of matter escapes from the opening over the ankle.

15th. Seems somewhat better to day. The countenance is less anxious and sunken. He is taking a mixture of tartarized antimony and liquor opii sedativus.

17th. There was more tumefaction and inflammation of the leg yesterday; but it has subsided a good deal to day, leaving, however, an abundant discharge of healthy-looking pus, from the anterior opening. There is a hectic flush on the cheeks; appetite has been very indifferent since the removal of the bone, but is somewhat improved. Takes four ounces of brandy, and the like quantity of port wine daily.

18th. Several superficial absorbent vessels are seen passing up from the leg along the front of the thigh, in the form of delicate red streaks, and terminating in the superficial lymphatic glands of the groin, some of which may be felt enlarged and rather painful. In other respects the leg is much the same. Pulse 120, feeble.

20th. The absorbents are less inflamed than they were yesterday, and there is less swelling and inflammation in the leg. His general health is also somewhat improved; pulse 120, stronger and fuller than at last report; bowels confined.

R. Olei ricini ℥ ss;

Tinct. cardam. comp. ℥ iij;

Ft. haust. c. m. p. s.

21st. The oil has operated two or three times, and the patient seems relieved by it; appetite is better. Mr. Lynn made a small opening into a collection of matter, which has formed on the front of the leg, and evacuated a quantity of pus.

23rd. A good deal better to day.

28th. The discharge has almost ceased from the inter-osseous space, and that from the outer

side of the ankle joint has improved much in quality. The entire leg appears to be going on very well, and is likely to terminate favourably, with the exception of a little deformity at the ankle joint, the relation of the tibia to the astragalus being somewhat too internal. The patient's general health improves rapidly.

30th. The extensive breach of surface over the inner ankle is granulating and healing in a very favourable manner.

Aug. 1st. The general health continues to improve. The local mischief is likewise becoming repaired.

4th. The leg has been to day put up in splints, and the patient states that he feels comfortable.

6th. Goes on very well. General health in a fair way to be perfectly re-established. He has extra bread, and half a pint of porter daily, in addition to his wine and brandy.

Sept. 1st. During the last fortnight the leg has been out of splints, and he has merely had a roller applied. The various sinuses and sores about the ankle are now quickly healing; all tumefaction has now nearly disappeared; and there does not appear so much deformity in the leg as might have reasonably been anticipated, and was at one time threatened. The general health is now pretty good.

22nd. Made an out-patient to day. There is very little deformity about the ankle, excepting only a little tumefaction; no anchylosis has taken place, and he hobbles about with the assistance of crutches. His general health appears quite established.

—o—

NORTH LONDON HOSPITAL.

Lithotomy.

MR. LISTON performed this operation last week, on an old man, aged 80. He had suffered from stone in the bladder for fifteen years. He has experienced great pain in the region of the bladder, and has not been able to retain his urine, which constantly keeps dribbling away from him. The curved staff was introduced, and a stone of supposed large size detected. The operation was performed in the usual manner; there were some difficulties in the case, however, worthy of notice. On the introduction of the forceps, the operator had some difficulty in grasping the stone, which, when he succeeded in doing, broke to pieces in the blades of the instrument; he succeeded, however, in removing the various portions of the stone in a few seconds; the searcher now evidenced the existence of another stone of larger dimensions than the first; this constantly eluded the grasp of both the short and long forceps, but a hold being obtained by the last instrument, it was found, on attempting to withdraw the stone, that the incision was not large enough for

that purpose; the knife was now introduced, and the right side of the prostate divided; the stone was then removed without difficulty.

Previous to operating, Mr. Liston observed, that though this case was unfavourable in some respects, from the extreme age of the patient, and the considerable size of the stone or stones, yet he was induced to operate, from the circumstance of almost all the very old men whom he had cut for stone, having made very good recoveries. Mr. L. said, after the operation, that the difficulties of the case were owing to the patient not having been able to retain his urine; he therefore felt great difficulty in seizing and disentangling the last stone from the fundus of the bladder. There were however no parts cut more than was necessary, and the loss of blood was very small, being scarcely more than two ounces.

The stones were of the lithic acid formation, with an outer coating of triple phosphate; the first about $1\frac{1}{2}$ inches long, $\frac{1}{2}$ broad, the second about 2 inches long, and 1 broad.

Oct. 12. Doing well.

The excellent arrangements in the way of clinical instruction, the regular attendance of the medical officers, and the lowness of fees, make this hospital a most advantageous one to the student. Both physicians and surgeons are indefatigable in their endeavours to assist the pupils.

—o—

ST. GEORGE'S HOSPITAL.

Colica Pictorum.

W. FAREBROTHER, aged 30, was admitted under the care of Dr. Seymour, August 19th ult. He complained of severe pain in the abdomen, constipation, loss of appetite, and furred tongue.

R. Hydrag. subm. gr. iij;

Opii pulveris gr. ss.

Fiat pulvis singula nocte sumendus, et cras mame ol. ricini.

Utatur balneo tepido omni nocte, et enemate communi.

Foveatur abdomen.

He continued these remedies until Sept. 3rd, when he complained of giddiness and indistinctness of vision.

C. C. ad $\frac{3}{4}$ xij.

6th. Pain in the head diminished, bowels open.

Habeat haust. salin. efferv.

8th. Headache relieved, tongue still white, countenance improved.

23rd. Dismissed cured.

Chronic Rheumatism.

Mary Bradford, aged 26, was admitted under the care of Dr. M. Leod, Sep. 2, 1835. She stated that she had suffered from rheumatism for the last twelve months.

She now complains of slight swelling in the knees and ankles, slight cough, general health impaired, pulse weak, and appetite bad.

Rx. Haust. cinchonæ, \bar{z} iss ;
Tincturæ guiaci, \bar{z} j ;
Fiat haustus ter. in die sumendus.
Habeat ext. conii, gr. vi. om. n. h. s.

Let her have ordinary diet.

She continued these remedies until the 19th, when she was much better; but she now complains of pain in the right arm and shoulder.

Rx. Tinct. guiaci ammon., \bar{z} ij ;
Aquæ \bar{z} iss.

Lit haustus ter. quotidie capiendus.

Sumat pulv. ipecac. comp. $\bar{\text{D}}$ ss. o. n. h. s.

Omitantur alia.

She continued this remedy until the 25th, when a blister was applied. She now complained of a glandular swelling under the left lower jaw, to which six leeches were applied. In a few days more she was free from rheumatism.

Diabetes.

James Birch, æt. 55, was admitted August 19th, under the charge of Dr. Seymour. He states that about nine months ago he observed his urine increase in quantity, and it at present amounts to nine pints during the night. Previous to his attack he was subject to perspiration of the feet, which ceased, when his present complaint commenced. He suffered from severe pain in the loins, extending along the ureters, and to the glans penis. He was ordered aperient medicine.

24th. Ammon. hydrosulphuret. mv ;
Aquæ fontis, \bar{z} iss ;
Sit haustus ter. de die sumendus ;
Habeat opii, gr. j m. vespereque.

Extra diet without vegetables or beer; milk for breakfast and supper.

26th. Urine diminished, two pints in the twenty-four hours.

Sep. 4th. States that he weighed 17 stone a year ago, and at present only 10 stone 2 lbs.

He continued his medicines until the 14th, when his urine had diminished 6 pints in the day. From that time to the present the quantity of urine has scarcely varied, and the only addition made to the treatment was the use of the vapour bath. He wished to leave the hospital, and confessed himself grateful for the relief afforded him.

—o—

Inerate Syphilis treated with Phosphoric Acid—By Dr. HEINECKEN.—An individual had been affected with syphilis a year or eighteen months, and had, without success, submitted to the employment of various remedies. His disease, at this time, consisted of ulcers in the neck, exostosis of the cranium, and over one orbit, tumefaction and pain of

the nose, accompanied with the discharge of an acrid bloody ichor, and pain of the antrum highmorianum. He had also a kind of herpetic exudation from nearly the whole surface of the body, and extreme pain of his bones and eyes, at night, which rendered it almost impossible for him to move. Under these circumstances, Dr. Heinecken prescribed phosphoric acid in as large doses as the stomach could bear, together with a strong decoction of the solanum dulcamara. The continuous employment of these means, brought about a complete and permanent cure of the disease.—*From Pierré's Allg. Med. Zeitung.*

—o—

CHAIR OF BARON DUPUYTREN.

SINCE the death of Baron Dupuytren, the chair of this celebrated surgeon, by the change of attendance of Professors Roux and Velpeau, has been transferred to the Hospital of La Pitié. The concours for this professorship will be held in 1836. Whilst waiting the appointment of the successful candidate, the lectureship has been confided by the Faculty to two equally distinguished surgeons, M. Blandin, surgeon to the Hospital Beaujon, and M. Berard, Jun., of the Hospital of La Salpêtrière. M. Blandin has given lectures for six months. M. Berard, who commences on the 1st of November, will continue the course for the winter months. We doubt not that this young surgeon will have the same success as his predecessor, and be also prepared to dispute the chair of the great master with a very favourable chance. The Royal Council of the University have authorised the commencement of a course of lectures on Dietetics at Paris, for the preparatory instruction of nurses.

—o—

BOOKS.

A Series of Botanical Tables, and Tables of the Materia Medica, designed for the use of Students preparing for Apothecaries' Hall; illustrated with numerous Engravings on Wood, and four coloured Medico-Botanical Maps of Europe, Asia, Africa, and America; shewing the Geographical situation of all the Plants in the Pharmacopœia. By W. K. TOASE, T.L.S., Lecturer on Botany and Anatomy.

An Introductory Address, delivered at the commencement of the Tenth Session of the Manchester School of Medicine and Surgery, Pine Street. By JAMES L. BARDSLEY, M.D., Lecturer on the Principles and Practice of Physic, and on Materia Medica and Therapeutics, at that Institution.

In consequence of the illness of our engraver, we are unable to give a plate this week, but we shall make amends by furnishing one the two following weeks.

London Medical and Surgical Journal.

No. 196.

SATURDAY, OCTOBER 31, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

BY JAMES MANBY GULLY, M.D.

LECTURE XX.

Question of the Essentiality of Fevers—Revolutions in the Theories of Fever—Inflammation, Bilious, Mucous, Entero-mesenteric, Ataxic, and Adynamic, or Typhoid Fevers.

We proceed to examine another assertion. Some have maintained that the name fever should be adopted as representing the most general phenomenon of febrile disorders, and they have based their assertion on a distinction long since made between fevers and inflammations. Say they, we daily see fever manifested without any sign of local inflammation, and diminish in proportion as the latter develops and takes a locality; fever and inflammation are, therefore, two distinct things, and the former is the principal one. Such would then call all febrile conditions fevers, instead of calling them inflammations; and in order to keep in mind the inflammation, when such exists, they adjoin to the generic term an epithet drawn from the organ that is inflamed; in this manner we have cerebral fevers, pulmonary, catarrhal, bronchial, pleuritic, gastric, rheumatic fevers, &c. Are we bound to adopt these denominations, and the presumption on which they are grounded? I think not. In fact, inflammation may exist, and even produce vast mischief, without there being any fever; whereas fever can never exist without some existent shade of inflammation: the latter is the fundamental fact, and the former a circumstance, an accident, a mere effect. You have no right to make inflammation subordinate to fever, nor should you habituate yourselves to the recognition of the first by the second alone—a plan that would lead to serious errors of diagnosis and therapeutics. Considering inflammation as independent of fever, you will not wait to assault it until the fever appears; you will oppose it as speedily as possible, in order that this destructive phenomenon,

tending as it ever is to extension, may not be propagated. On the other hand, seeing the approach of fever, you may, without any fear of deception, assert that there is an inflammation somewhere: you have then only to find the seat of it; you pass the different functions in review, and when once you have discovered it, you put a stop to the fever by attacking the inflammation. The fever persisting, you seek in some other organ for the stimulus that maintains it, and you put an end to it in the same manner.

By regarding fever and inflammation in this way, we are led to establish a line of demarcation between inflammation with, and inflammation without fever—a point of serious import in the treatment; for it often happens that a phlegmasia, previous to being acute and febrile, remains for a long time latent and apyretic, and that if we wait to attack it until fever has appeared, it is sometimes too late; disorganization has taken place, and the patient is lost. Thus the natural order of things obliges you to make fever subordinate to inflammation, and not inflammation to fever; and you find this advantage in it, that inflammation once well conceived, leads you to seek out the exact position of the disease, its causes, and the determination of the most effectual modifiers in its cure; whereas, fever being placed foremost, and made the ground of your treatment, exposes you to the most prejudicial mistakes.

Since we are speaking of fever, it may not be amiss to investigate the various acceptations of the term. With Hippocrates, fever was a state of the system characterized by a violent tumult of the blood and humours, a sort of general blaze. In his relations of cases, he tells you, "I went to such a patient: he had fever, more or less heat, delirium, &c.," but he does not specify the fever. Hippocrates was wise, and did not prejudge: he simply related what he saw; to have a proper judgment of him, we should separate what he has written from what he has been made to say; it would then be seen, that of all the ancient writers, he was the least prejudiced. He placed in the foremost place the observation of facts, and put into execution, without saying so, the very thing that Descartes and Bacon recommended so many ages afterwards: this it is that gives him

so high a place in the hierarchy of the sages of old, and a right to be considered at the head of them. For some time, all went in his footsteps; then came the school of Alexandria. Erasistratus established a difference between fever, properly so called, and other fevers. Galen took the expression previously in vogue, for the character of particular fevers; but between him and Hippocrates several doctrines had made their appearance, and among these, was more especially distinguished that of the four elements taught by Plato, who retained the principal divisions of Erasistratus, referred fever to the four elements and the symptoms, and called one essential, the other symptomatic: the former of these have descended to our times, and are in fact, phlegmasiæ, whose seat had not yet been determined. They then made use of scholastic divisions, apparently clear, but which at the bottom had no meaning whatever. In this manner they recognized simple fevers, synchous fevers, putrid, sanguineous, containing, or without exacerbation, continuous with exacerbation, but with no rigor nor sweating, remittent or exacerbations, with rigor and sweating, intermittent or regular accessions, separated by a complete apyrexia—and all these they explained by affections of the fluids, the bile, the blood, the phlegm, the atrabilis—an imaginary humour—or by the disturbance of the corporeal spirits. These divisions are in direct accordance with the march of the human mind, which first of all rests on the most prominent objects, but as these are far from responding to all the forms of fever, others, founded on the symptoms, came to be established. There were bilious fevers that were explained by an excess of bile (bilious synocha), or by excess of blood in the small vessels (sanguineous synocha); fevers in which the evacuations predominated, and which were termed colliquative, a term that may be traced to Galen. At the time when I was a student on the benches of the lecture-room, and when these colliquative fevers were matter of great speculation, they could form no idea of them—of fevers, in which the body was represented as melting like a lump of butter in the sun. It was I who first announced that these colliquations, accompanied with copious diarrhoea towards the close of diseases, were nothing but consecutive entero-colites supervening in individuals on their last legs. I know not whether some learned Theban has found this announced elsewhere, but, for myself, I most certainly have not seen it in any author.

Other symptoms we have, that might well call attention. We have fevers, in which shivering and cold predominate; these were called algid, horrific, and were explained by the mixture of the bile or blood with the phlegm, the latter being cold, the others hot; the phlegm fights it out with the bile and blood, and if victorious, cold remains master of the body. Asodes fever

is a fiery or acrid principle, acting on the nerves. Elodes fever is the sweat exhalng through the pores. Syncopal fever, says Galen, is the bile stimulating the orifice of the stomach; producing syncope. All these fevers correspond to unknown local phlegmasiæ. Even now-a-days they would persuade you that in many of them the inflammation is general; but this is nothing but the corruption or putridity of Galen. There is no more inflammation of the whole sanguineous system, than there is general inflammation in consequence of the bile, the blood, the sulphur, putrid humours in the vessels, &c.—the whole is alike false.

The ancients frequently saw putridity in fevers, and the few autopsies they made, might very well keep them in this error. For the rest, you cannot wonder at it, knowing that these fevers are inflammations; for the elements of the supposed putrescence are heat and moisture, and the more inflammation is fierce, and fluids are accumulated in a part, the easier is putrefaction after death. Cadaveric exudations, and quickly effected humoral alterations, appeared to them to be general, although they were really confined to certain parts, more disposed, from their inflammatory condition, to chemical dissociation. This doctrine, absurd as it may appear, is still spread abroad; they have put another cloak over it, but still it remains the same, as I shall show in the course of this examination.

Passing from the barbarous times, we approach the seventeenth century, when science began to take her flight. At this epoch you have a crowd of classical writers that are continually quoted; the chief of which are Vanhelmont, Buerhaave, Baillou, Willis, Baglivi, &c., who had derived their doctrines from Galen, who tended towards localization. After them came the observers, who practised autopsies at the same time that they endeavoured to take from the ancient systems—Bonnet, Riviere, Glisson, Sydenham, Pringle, Lind, Mead, and all the epidemists. They were eclectics, who gradually modified their method, and set aside explanations, only to stay by the mere descriptions, in imitation of Hippocrates, around whom they rallied as round a sacred beacon. They ceased to attribute fevers to the humours, and nothing but epidemics, caused by some extraordinary and incomprehensible agent went down. Looking closely at diseases that bore the nearest resemblance to each other, they saw differences between them, which gave to each a particular physiognomy, and they accordingly multiplied the forms of them to an extraordinary extent. This might be said to be the epoch of the inbreaking of light, for error was pushed to its utmost limit, and fell by the very exaggerations of the epidemists. To the diseases of seasons they added those of latitudes, then those of localities, which they at length even substituted for epidemics; and had ridicule not stopped them, they

would finally have described the fevers of every little village, as they had already done those of Hungary, Dalmatia, &c. Such were the fevers of the epidemists, groups of symptoms without end, entities that cannot inspire regrets.

These diseases again underwent a change in the reign of vitalism. The irritability of Haller brought back the *strictum and laxum*; and Baglivi's treatise, "*De fibrâ Motrice*," consolidated his ideas. Hoffman maintained that reference should be had to debility and spasm, without, however, altogether renouncing humorism. Then came Cullen, who swept away the remnants of humorism, and beheld nothing but strength and debility. Later on, the mechanical theories of which Borelli was the propagator, replaced these ideas; it was no longer the conservative principle, or *natura medicatrix* of Hippocrates, but the power of the heart which impelled the blood forwards, to the overthrow of all obstacles: to this Boerhaave leaned. Then came the animism of Stahl, the duration of which was short, especially among physicians, who could find no profit in sounding words and hypotheses, in souls and abstract principles. The "vital force" became allied to the "irritability" of Haller; "nervosism" was added to these, and the whole passed into "sthenia and asthenia" in the hands of Brown. Fever was excluded, and no longer explained anything. But this doctrine is more dangerous than that which admits fever, for it gives you two weapons, weakening and stimulating; if you stimulate the patient when he ought to be quieted, you enact a homicidal part; if you remain inactive when you ought to be acting, the disease gets on, and may prove fatal by excess of power and irritability; if you debilitate when there is already too much debility, you may in like manner cause death. The most mischievous trait in this system is, that by it the characteristics of debility were mistaken, and too much stimulation employed: on this, however, we need not now dwell; suffice it to say, that it was adapted to the subject of fevers, and held its ground down to our times, when in this very school appeared Pinel, the celebrated nosologist, the true eclectic classifier, proceeding in the footsteps of Sauvages his predecessor and model, and like whom, he wished to adopt and conciliate all the previous ideas. There are men indeed, whose organization leads them to recapitulate and classify objects: such men scarcely invent at all, and sum up the discoveries of others in order to form a nomenclature: of these, Pinel was one. He reformed the classifications of Sauvages, and passed through life in the painful condition depicted in his phrases, scarcely ever knowing, amid the incoherences consequent on his eclectism, on what opinion to fix; yet he did good service by provoking investigation, from the doubt in which he plunged physicians. Had

he not written at too early a date, before he had sufficiently studied pathological anatomy, his ideas would have been much more judicious and fixed, and his influence more salutary. Now, on the very question before us, what remains have we of him? Six fevers which he had not the courage to *disessentialise*, and in place of which, as they were falling away, others have been substituted. These fevers of his, as well as his hesitation in announcing them, I attacked in my *Examen*, and I showed how prejudicial it would be to partake of his doubts and amalgamate, as he had done, several systems together. In fact, almost all the modes of treatment of his predecessors are adopted by him, particularly emetics and tonics, to which he assigned a prominent place, while purgation seems almost to inspire him with horror. I showed that he dared not think that all fevers are referable to inflammations, that is to say, that all febrile states not having the name of symptomatic fever, should be placed in the same category as the symptomatic fevers of catarrh, of rheumatism, pneumonia, &c.; and though every one is not yet convinced of this truth, yet the general opinion has done justice to very many fevers, in spite of the disguises they would impose on the reform effected by us. Thus mucous fever has given place to the entero-mesenteric, and has been lost in dothinentery; bilious fever has disappeared and been lost also in dothinentery, when prolonged; adynamic fever remains as the type of the latter, so that definitively, almost all fevers are, as it were, merged into dothinentery. The plague has been respected, as has also been yellow fever, because as they do not reach us, there has been no way of investigating them. On these a silence has reigned, but they have pertinaciously held by inflammatory fever: they find our refutation of it insufficient, at least they tell us that though we have proved that certain inflammatory fevers depend on inflammation of the viscera, there are others of which we have given no relation; and to support this, they have lapsed into a string of vague expressions. At present then, little more than two fevers are proposed to our faithful adoption, into which all the others glide: these fevers are the inflammatory and the typhoid, or dothinentery. And first of the inflammatory.

Inflammatory fever presents itself with frequency of pulse, halituous heat of the skin, moist tongue, no local pain, but only a feeling of fatigue and bruising of the limbs, and some headach: thus it is in young adult and sanguineous subjects. You may clearly see that this is only an affair of constitution and shade. What would you make of this group of symptoms? a catarrh? You have not all the characters of it. On the other hand, you can gain nothing from an autopsy, for the patient cannot die in this state: to kill him the disease

must become considerably worse, become a serious phlegmonous or membranous inflammation; take, for instance, the form of a gastro-enteritis passed to the typhoid state, with ataxic and adynamic symptoms—or a cerebral congestion supervene—or pneumonia, pleuritis, peritonitis, &c. come on; in one word, this state, which they give you as representing inflammatory fever, must degenerate into one of greater gravity, in order to become mortal. *Then what do you find?* A visceral inflammation. What, then, is this inflammatory fever? The dawn of this same inflammation not yet sufficiently intense to satisfy the desire of beholding the local symptoms. But think you that such are altogether wanting? Undoubtedly not, and you may find them by analyzing the functions and interrogating the organs. In the first place, you will find that the stomach no longer digests, and that thirst has taken the place of hunger, indicating that the gastric mucous membrane is more than ordinarily irritated; you will see prostration of strength, necessity for the recumbent posture, proving, not a general affection, but an irritation of the nervous centres which are now more stimulated by blood; and so true is this, that if you bleed the patient, in two hours afterwards he gets up and walks freely. Is there, then, a general inflammation of the blood-vessels, as has been asserted? Is it an angiotonic fever? Be it so; but if this inflammation exist, most assuredly it can only be momentarily existent, for I should perceive the marks of it in the circulating apparatus, in the heart or the vessels, and I should at length behold signs of carditis or arteritis. But this is only seen in a small number of cases, and never in the ephemeral inflammatory fever, that lasts twenty-four or thirty hours—never in the non-putrid synocha of Galen, that ends in sweating or hæmorrhage. What will most frequently be met with is a beginning of inflammation in some viscus or other, not yet sufficiently serious to cause great disorder, and, in the present instance, evidently resident in the digestive canal. It is not in the lungs, else we should have bronchitis, or pneumonia, or pleurisy: it is not in the peritoneum, else we should have peritonitis, nor in the cellular tissue, without a phlegmon: neither is it in the articulations, nor the skin, nor the liver, nor the brain, &c., since we have neither arthritis, nor cutaneous phlegmasia, nor hepatitis, nor encephalitis, &c. Where, then, is it? In the internal gastric surface, principally in its sanguineous capillary network, in consequence of plethora. This sanguineous capillary superexcitation may, no doubt, exist elsewhere: but it predominates there, not in the most intense degree, although if it does not terminate by an evacuation or crisis, it will rise. It is therefore a gastro-intestinal phlegmasia in the first degree, such as is seen in youthful subjects, or as it

is exhibited in the onset of paroxysms of intermittent fever. It may even be only an irritative congestion, not yet passed into the properly so called inflammatory state—a congestion occurring in a visceral apparatus, chiefly in the gastric or in the capillaries of the mucous membrane of relation, shared in more or less by the encephalon and spinal cord, and which, therefore, is not general.

Pass we to bilious fever. It is agreed to consist in a phlegmasia of the digestive mucous membrane, with supersecretion of bile. But this supersecretion is a circumstance of individual constitution, of temperament, season, and previous regimen. Moreover, bile is not always secreted to the same extent throughout the whole course of the disease; most frequently it is at the commencement, when inflammation develops in the stomach, that the bile flows thither, accumulates, and is vomited or produces jaundice; or else, being rapidly poured into the intestines, it irritates them, causes increased peristaltic movements, and gives rise to bilious motions. But if you allow the inflammation to go on for a few days this secretion is changed, or even ceases altogether. This has been felt, and the name of bilious fever suppressed: still they have stayed by a state as the basis of a particular indication requiring evacuation of the bile when it is superabundant. Such indication may possibly exist to the eyes of some, but, for my part, I do not consider myself conscientiously bound to make use of evacuants, and I almost always dispense with them. I limit myself to the quieting of the irritation, and then the bile may go whither it pleases: at the most, I endeavour to assist its departure by warm water: if it hurries upwards or downwards, so much the better, but I do not force the already irritated stomach and duodenum to expel it violently. My colleagues and myself have, at Val-de-Grâce, frequently two hundred patients in this state, and we get them out of it, not by striving to evacuate the bile, but by calming the irritation. Besides, after this bile has been evacuated a fresh quantity forms, and this only lasts a few days, after which the time for evacuations is past. It is true we cannot fix the duration, but we can do very well without lavishing antibilious remedies. So true is this, that in jaundice I mostly make use of none at all, although in it the bile acts a predominant part: I calm the irritation of the duodenum and liver, and that is sufficient; occasionally, but very rarely, I give a purgative when the bile does not find exit by the bowels, but only to bring it into that track, and when there is no phlogosis. I therefore do not see what they would make of this bilious state. It is a fact, say they: no doubt it is: but it should be reduced to its just value. There are simple and there are complex facts: this secretion of bile is a complex fact that

must be decomposed: it depends on an irritation situate in the duodenum and liver: put a stop to this irritation and the bile ceases to be secreted in excess. Still, you may say, suppose it obstinately returns? Very well, be more obstinate than it. Instead of purging in these fevers, persist with antiphlogistics: this is applicable to chronic gastro-enteritis: I have lately treated an individual who, for about fifteen months, had every five or six days excessive bilious evacuations, with chronic gastro-duodenitis, and an enlarged liver projecting beyond the ribs. I had no notion of following up the so-called antibilious indication: I combatted his gastro-duodeno-hepatitis by regimen, leeches, and revulsives. This treatment was continued in for a year, and was followed by a cure. This person, whose perseverance deserved the reward of health, previous to consulting me, thought himself under the necessity of evacuating his bile, and he even felt relieved after every such evacuation: I however was not caught by this false indication, and I contented myself with putting a stop to the irritation that produced the bile.

Thus, then, is the bilious state decomposed: the same may be done with the mucous state. In fact, what is that state? An irritation of the mucous follicles which secrete overmuch and bathe the organs with mucosities; allay this irritation and the mucosities disappear. But, you will tell me, when these are excessive and conjoined with the bilious state, would it not be well to free the digestive canal from these oppressive matters? This is a question of the greatest importance, and to answer it one should be well versed in irritations; if it be slight you may evacuate; but if fierce your duty is to calm it. To sum up: these bilious or mucous fevers, these bilious or mucous states, are entities that signify nothing, except as symptoms, and are manifested at one period, but not throughout the whole course of the disease.

What shall we say on entero-mesenteric fever? Here something more exact presents itself, though the fever is still put forward as the principal object. The zeal with which medical men receive it, proves how great is their thirst for truth. This fever is nothing but a gastro-enteritis, subsequent to which we find redness, ulcerations, swelled mucous follicles in the small intestines, and tumefied mesenteric glands in the neighbourhood. In all times similar disorders existed, but were not appreciated, showing how tenacious of error men are, and how easily deceived. Since dead bodies have been inspected, no one has thought of taking this coincidence of intestinal lesions and mesenteric alterations as the basis of a particular fever: all at once appears a man to whose idea it occurred, and behold a new disease created. It is only a fact of pathological anatomy

ill explained: the word fever, substituted for that of inflammation, is not admissible: the mesentery is only secondarily effected, consequently this entero-mesenteric fever must be considered as "not proven."

As to ataxic and adynamic fevers, we know well what they are. At a certain period of gastro-intestinal phlegmasiæ, nervous phenomena, which I have already pointed out, appear; attention is directed towards them, and from them they take the name of the disease, which they consider as a nervous fever, with two different forms. It is certain that at the period in question there is an affection of the cerebral or cerebro-spinal system; the patient has the symptoms of ataxic fever with or without gastro-enteritis. If he has them without primary gastro-enteritis, he has encephalitis, and the ataxic fever must change its name. As to adynamic fever, I do not believe that it can be owing to the brain alone; its source is always in the digestive canal, as the symptoms indicate—dry, red or black tongue, mouth filled with blackish, bloody exudation, prostration of muscular power, supination, subsultus of the muscles which are not in a violent or permanent convulsion, but agitated from time to time, taciturn delirium, brownish colour of the skin, as in demi-asphyxia, fetid state of the mucous exhalations, considerable diminution of the feelings of any want, frequently laborious fatiguing respiration. This group of symptoms is the same that has borne the name of typhus since the time of Hippocrates; I attribute it to gastro-enteritis arrived at a degree that produces in the gastro-intestinal mucous membranes the alterations that I have described as corresponding with it; whatever cause may have brought it to this state, whether it has been irritated by good wine and food, or by bad drinks and indigestible, corrupted aliments, by miasms, moral affections, dry or wet weather, &c.—the symptoms are always the same. Hence the necessary confusion of adynamic fevers that depend on infections and those that do not, since in both cases they may be developed. In a word, typhus may belong to all the causes that produce gastro-enteritis, when not arrested, and when extended in the digestive canal. It then produces more invariably typhoid than ataxic symptoms—the latter accompanying inflammation of the gastric portion, which is with predominant irritation of the brain, and the former inflammation of the middle portion, which threatens great part of the mucous membrane with disorganization.

The whole, therefore, of the divisions of typhus, according to seasons, ages, climates, &c., may be reduced to the simple proposition that, arrived at a certain degree of intensity, gastro-enteritis invariably produces adynamic or typhoid symptoms, whatever the causes may be. And this fact renders

comprehensible all the accounts of epidemics that have been transmitted, or that may be hereafter produced.

This group of symptoms constituting typhus has furnished matter of much dispute. It has been said that it depends on something other than gastro-enteritis; that it may be induced by a latent suppuration, by a phlegmon, the pus of which has been retained under an aponeurosis, by the highest degree of peripneumony, by infection (particularly), subsequently to small-pox, absorbed deposits, &c. The proof, it has been said, that all these causes may produce typhus is, that it is found consequent on them, but without any traces of gastro-enteritis after death. I respect these facts, whencesoever they originate, but I confess that I have in vain, for a long time, sought for similar ones. I think that there wants some agreement as to the character of inflammation in the digestive canal, and that the disorders therein produced by it are badly appreciated. I shall repeat to you, that frequently after inflammation has prevailed in that canal, it goes elsewhere, so that the blood leaves it and accumulates in other organs—the lungs, for instance. In that case redness no longer exists in its former situation; but there is always either an anormal coloration, or ulceration, or softening, in fact, some alteration of the tissue of the membrane.

As to the objection, that peripneumony produces adynamic fevers as well as gastro-enteritis, I deny it: in that case the latter must exist, and there is complication of peripneumony and gastro-enteritis.

In the case of hidden suppuration, it is indeed possible that there may be a febrile affection resembling adynamic fever; but hitherto no satisfactory distinction has been established, nor has ever the slightest difference between these states been sketched out. I believe them to be identical when the disease has commenced by the phenomena of inflammation of the digestive canal; in short, I believe that when the group of adynamic symptoms exists, there is gastro-enteritis.

So much for ataxic and adynamic, or typhoid fevers.

—o—

A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By WILLIAM STOKER, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

[Few physicians have had such ample opportunities of observing fevers in Ireland as Dr. Stoker. This will appear by the perusal of the following historical Sketch of these diseases for a period of thirty-seven years. The subject of which he treats is of

immense importance, as there are few countries in which fevers are so prevalent as in Ireland, and as a history of these diseases is replete with instruction to all who practise in that country; while it enables others to institute a comparison between the characteristics of febrile complaints in that and other sections of the kingdom, as well as of other countries. It also throws great light on the pathology of fevers, and amply proves that their causes are not always to be discovered by dissection or by auscultation. It favours humoralism more than solidism, and manifestly proves that both doctrines are applicable to different varieties of fever.—ED.]

Introduction—Period from 1798 to 1816 inclusive.—Increase of febrile disease, gradual but constant, sometimes symptomatic sometimes idiopathic—but more generally these forms combined.—Instruction derived in all cases from the morbid changes in the blood, especially in distinguishing between inflammatory and typhoid disease.—Great value of these distinctions evinced by successful results.

Close and almost daily observation of the constant increase of epidemic diseases, in Dublin, since 1798, and of pestilence periodically within the last twelve years, has led me, in continuance of my public engagements, again to attempt a sketch of the medical history of that period*. By faithfully detailing the events I have observed, and as they are recorded in the annals of the institutions in which I have been engaged, and arranging them in the consecutive order in which they occurred, I hope to present an incontrovertible statement of facts, which, if duly considered by those devising means of prevention and cure, would, I am convinced, have rendered their efforts more successful. At least that much of the prejudice of preconceived opinions, which has hitherto been the source not only of failure but also of mischief, in the otherwise valuable institutions of Dublin, would, I believe, have been obviated†.

Materials thus collected for others better qualified to compile them, may also aid in the task of tracing effects to their true causes; and I am persuaded, that however difficult that may be, it can in no case be more indispensable, and hardly more important, than in inquiring the causes of the

* Physician to either the Dublin General or Meath Street Dispensary from 1798 to 1803—to the Fever Hospital and House of Recovery, Cork Street, from 1803 to July, 1834, 100,000 patients being received in that time—and to the Molyneux Asylum for blind females since 1815.

† See the Medical Reports of the Dublin Fever Hospitals from 1803, and those of the Cholera Hospitals since they were opened for the reception of patients, in 1832.

rapid advance of disease in the Irish metropolis, as if in defiance of the extensive apparatus, and of the numerous means provided there to check the progress of contagion. The extraordinary phenomena, both moral and physical, which *pari passu* have accompanied that long-continued progress of disease, have been noticed since 1804, in the annual reports from the Fever Hospital and House of Recovery, Cork Street*. That parallel may be found traced at the eighth and twenty succeeding pages of the second part of my "Pathological Observations," published in 1829†, and still further extended in the Practical View of Ireland, published in 1831, by James Butler Bryan, Esq., Barrister at Law‡.

But other motives, which also influenced my previous efforts, induce me to renew them; namely, to promote a sounder pathology than is likely to result from contests between exclusive solidists and exclusive humoralists. Desirous, as on previous occasions, to draw the notice of pathologists more closely to the constant connexion which I observed as our epidemics have advanced to pestilence—between morbid changes in the blood, and debility or derangement of the vital functions—and to the important question, "Were these synchronous phenomena merely accidental, or were they ancillary?" Also, "How far were they mutually dependant at the beginning, and during the progress of disease?" Questions which have become, yearly, more and more interesting as successive systems have failed in generating a practice, effectual as it should be, in preventing and curing diseases. The comparative value of successive speculations, too, during their temporary application to transient changes, can be best shown by placing them in the order in which one was proposed on the destruction of another; and the fitness of what remains of their debris for a more enduring structure can be more fully estimated. (Vide note A, Appendix.)§

Proud to acknowledge the aid which my former attempts similarly and arduously directed, met with on the Continent, (especially in a critique by Dr. Steinheim, in the Magazine of German Literature, and in Great Britain||, I beg to give the following extracts with that view, as well as in justification of myself, viz.—

* See Annual Reports from the Cork Street Fever Hospital for 1806, 7, 11, and 16.

† See Pathological Observations, part 1, Dub. 1823; part 2, Dub. 1829; and part 3, Dub. 1830.

‡ A Practical View of Ireland, by J. B. Bryan, Esq., 1831.

§ See a dissertation on the Institutes of Medicine, particularly relating to the Pathology of Fever.

|| Med. Chirur. Review, new series, No.

"About forty years ago, (Dr. Steinheim's Critique continues,) Cullen first advanced in Edinburgh the doctrine of Sthenia and Asthenia; which had extended itself over Europe for half a century under different names, and manifold shapes. Its intellectual course passed two points of Culmination; the former in Brown, the latter in Broussais. And now comes the second extinguishing blow from a quarter near that from which the theory of solids, as a first flash of lightning, blasted the old fabric of the pathology of humours. A new, although not unheard of appearance.

"This last meteor of the solidists, whose elegy Doctor Stoker has already sung in Ireland, will soon be extinguished.

"It would be incredible how far almost all our fellow artists across the sea suffered themselves to be enticed into that quagmire, the theory of solids, by the appearance of the solidity, as by an *ignis-fatuus*, if their writings did not prove it. One may even see the disjointedness of false explanation, and the wildness of their madly forced applications at the bed of sickness. The adherents of the pathology of humours were regarded with real pity, disdain, and contempt; and the gestures of those persons are ridiculous, when nature presents them with an explicable problem as a barrier on the theoretical highway, and forces from them a reluctant acknowledgment, (*un eveu arraché par la verité*) as Broussais often expresses himself against Ontologists."—pp. 35, 36, 37.

"Stoker now opposes himself to this physio-pathology of his countrymen, and with the danger of having all that applied to him, which was said against humoral pathology in modern times. Every well-intentioned person will praise him for his courageous love of truth. The manner in which he conducts his new doctrine proves this at once, for he prepares and conducts the reader by practical cases as they occurred to himself. This method is certainly practised by his countrymen, and is formed on the fundamental principles of Locke, being peculiar to observers, who wish to deviate but little from direct evidence, and retire quickly to it again*."—pp. 40, 41.

"The next part (continues Dr. Bostock), ('Pathological Observations,' part 1, &c.) consists in observations on the connexion supposed to exist between the appearance of the buffy coat on blood, and the time re-

1, p. 155, June, 1824; London Med. and Sur. Jour. Oct. and Nov. 1829; Med. Chir. Review, Sept. 1, 1820.

* Magazen der Auslaudeschen Literatur der Gesamnter Heilkunde, &c. &c., Von Dr. G. H. Gerson, and Dr. Nichol, Henri Julius, Juli, August, 1824, Art. 2. Pathological Observations, &c. &c., by William Stoker, M.D., 1824.—Translated by I. G. Abellshauer, Professor of Languages.

quired for its coagulation. It is well known that pathologists in general have looked upon this as a merely physical operation, and have explained it by the slow coagulation of the blood in the cases in which it presents itself, and by the time thus allowed for the precipitation of the red globules. Dr. Stoker rejects this explanation, as being incapable of being reconciled with the results of actual observation. He has given a tabular view of the state of the blood drawn from twenty-seven patients; the time required for its coagulation, with notices of the presence or absence of the buffy coat, &c. We do not think it necessary to transcribe this, but shall contrast one or two of the cases which appear to fully support the doctrine Dr. Stoker has advanced!!”*

The following remark of M. Duges on the creeds of the solidists and humoralists, was extracted for the *Medico-Chirurgical Review*; from the *Revue Medicale, Mars, 1824*; that the reviewer of my *Pathological Observations*, might thus express his unqualified approbation of both: “Il ne serait pas moins de raisonnable d'adopter des idées toutes contraires, et de nier les alterations du sang, ou de le croire indifferentes aux phenomenes de la santé et de la vie. Un juste milieu entre ces deux extremes est, sans doute la veritable route a suivre.”†

“Dr. Stoker (says the *London Medical and Surgical Journal*) has drawn his conclusions from the best of all premises, from observations at the bed-side of the sick, and he has found the present theories of Cullen, Brown, Darwin, Clutterbuck, Marcus, Plouquet, Broussais, Bretonneau, and others, all inadequate to their explanation. The ardent admirers of necrotomy are now convinced of the inutility of endeavouring to discover the causes of febrile and other diseases, by the scalpel; and they are once more very rapidly returning to the other modes of investigating the causes of these diseases, which cannot be explained by localising them, or referring them to different organs. Dr. Stoker is the first writer in this country who has assailed the modern theories, and endeavoured to direct attention to the condition of the fluids in disease.”

But I must conclude these extracts with another, by way of reference to Dr. William Pulteney Alison's “*Outlines of Physiology and Pathology*,” as they ably support the difficult position which, though unknown, it seems, to this distinguished pathologist, I have felt it my duty, *since the beginning of this century, to maintain* through evil report and through good report, and I would feel wholly inexcusable to shrink from it at this critical period.

The “moving powers of the animal economy,” and especially the province of the nervous system (see *Outlines of Physiology and Pathology*), in producing the phenomena of life, which were long neglected in certain schools of medicine, have been erroneously conceived in others; by Stahl, by Hoffman, by Cullen, and Whytt*, and to a certain degree by Bichat, by Legallois, and even by Dr. Wilson Philip; and were more accurately understood by Haller, than by any of these authors.

“Besides the misconceptions which seem to have prevailed (continues Dr. Alison), and still prevail, among many physiologists, as to the essential condition of vital movements, and particularly to the influence of the nervous system, in determining these movements and their immediate effects; it seems now pretty generally admitted, that the influence of the truly vital properties of the blood, and other animal fluids, on many of the most important changes of the living body in health and disease, has been *until lately* very much overlooked. When these vital properties of the fluids are better ascertained, and their importance duly appreciated, there is every reason to believe that the distinction so often drawn in the schools of medicine between solidity and fluidity will be effectually obliterated by the admission that most diseases originate in that part of the system (the capillary vessels) where the animal solids and fluids are most intimately blended together, and are continually interchanging particles, and therefore necessarily extended to both†.”

The early and terrific effects of the causes referred to in the introduction, appear in the synoptical tables of the Rev. Dr. James Whitelaw's *Essay on the Population of Dublin*. In 1798 (he states) there were in Dublin 16,401 houses, and 172,091 inhabitants; and in 1804, but 15,645 houses, and but 167,899 inhabitants; so that the return of 1798 exceeded that of 1804, by 756 houses, and 4,192 inhabitants.

Now, if it is borne in mind that it was in 1798 Dr. Jenner published his “*Enquiry into the Causes and effects of the Variola Vaccina*,” and that his recommendation of infection with that virus has been since very generally adopted in Ireland, and its beneficial effects as widely extended, it follows necessarily from this singular depopulation of Dublin since, notwithstanding the most fatal of epidemics, had been thus arrested, that other epidemics must have become more

* Edit. Edin. 1773.

† *Outlines of Physiology and Pathology*, Lon. 1833. By William Pulteney Alison, M.D., F.R.S., Fellow of the Royal College of Physicians, and Professor of the Institutes of Medicine in the University of Edinburgh; preface, pp. viii. ix,

* *Elementary system of Pathology* by J. Bostock. M.D.—London, 1827.

† See *Med.-Chir. Review*, new series, No. 1, June, 1824, p. 155.

general and malignant. Besides this valuable addition to prophylactic medicine, there was simultaneously in operation in Dublin the most extensive apparatus in the British dominions for checking the progress of contagion. The sources of malaria, too, and hence of ague, were nearly removed. This, I conceive, imperatively calls for a closer investigation into the causes of disease, not alone by the faculty, but the community. The public safety at least would be thus promoted. It is now quite clear that evident causes have either been overlooked in contriving preventive and remedial measures, or that they have overwhelmed the inadequate means in use.

The type of epidemic fevers at the close of the last and beginning of this century, was in most cases very nearly described in Dr. Cullen's definition. "*Febres sine intermissione nec miasmate paludum ortæ; sed cum remissionibus et exacerbationibus, parum licet notabilibus, perstantes paroxysmis quovis die binis.*" The diurnal paroxysms, however, distinguished them less every year, as the sources of malaria were dried up, and perhaps, too, as famine, mental depression, and consequent pestilence, assisted to obliterate the vital energy or efforts (*Conamina*, as Sydenham calls them), to repel the encroachments of disease, struggles on which these phenomena in some measure depend. These struggles, I remember, were pointed out to us, who were his pupils, in 1796, by Dr. Perceval, in his lectures on the cases admitted into the clinical wards here, and afterwards in the Edinburgh Infirmary, in the years 1797 and 1798, by Drs. Gregory and Rutherford; and notwithstanding a more rapid growth of disease for several years before, the cases then did not differ materially in their external character, nor essentially in their nature from those described at a much earlier period of the 18th century by Drs. Boate, Rogers, and Maurice O'Connell*. At these periods, it appears too, as continued fevers became more typhoid than inflammatory, symptoms of debility in the functions, with corresponding lesions in the circulating mass supervened. Re-action, however, was better marked by increased force and velocity in the pulse, and higher degree of temperature at the close of the last, and beginning of this century. It was also more frequent at the commencement of diseases than since, and in mixed cases continued through a more considerable portion of the disease. The prevailing fever was very generally denominated Synochus. Dr. Cullen's definition of that species, however, was not wholly unobjectionable; for *synocha* or the *causa* of Dr. Mason Good, was then, as

since, a very rare occurrence; but if *pyrexia* be substituted for *synocha*, it would in many cases be found admirably suited to the mixed fevers that prevailed; and in many still more so, if rendered thus—*Phlogosis initio et versus finem Typhus*.

Continued fevers, however, of any species, could neither have been so prevalent nor so severe before as since the beginning of this century, no hospital being expressly provided for their prevention and cure in Dublin before 1803. And that, notwithstanding the subsequent increase in extent and aggravation of symptoms, no changes in their nature or essential characters had then taken place, will appear more clearly by comparing the reports published from the fever hospitals of Great Britain and Ireland at the commencement of this, with the descriptions in the first and second quarters of the last century, already referred to.

The principles and practice adopted in the treatment of fever at that period were very generally founded on Boerhaave's system of pathology, or, more properly speaking, on the same eclectic plan as his system—that is, upon the rational opinions of others, whether antecedent or contemporary, connected together so as to mould them into a consistent and uniform theory. Consequently, morbid changes in the vital fluids, and morbid actions in the living solids, in whatever degrees they were found conjointly or reciprocally affected, were duly studied and promptly prescribed for, without fruitless inquiry into the *primum punctum saliens*, or *postremo moriens*, and with still less hesitation preferring allopathy to homopathy.

In intermitting fevers emetics were employed on the supervention of the rigors, to relieve the oppression at the stomach, and because spontaneous or excited vomiting had been noticed previously to abate or shorten them. Costiveness having been observed in the intervals to render the succeeding paroxysms more severe, and accidental purging beneficial, laxatives were always directed for the due evacuation of the bowels; but Peruvian bark was directed still more empirically, and, as at present, when not contra-indicated, was employed at all stages of the disease*.

Continued fevers were treated upon nearly the same principles, and according to the most obvious indications, whether the signs were observed in either fluids or solids, or in both. In dynamic or inflammatory fevers, means, especially general and local bleeding, were employed proportionately to the increased strength and velocity of the pulse, the pain of the part affected, and the derangement of the function most engaged; the prescriber being guided by the external character of the blood taken from a vein,

* An Essay on Epidemic Diseases, by Joseph Rogers, M.D.—*Morborum acutorum et chronicorum quorundam observationes*. Auctore, Mauritio O'Connell, M.D.

* See Annual Reports from the Cork Street hospital, for the years 1806, 7, and 11. By Wm. Stoker, M.D.

or accidentally effused. If the crassamentum was firm, colour not darker than natural, and surface sizy, the evacuation was continued or repeated, as otherwise seemed necessary for the patient's relief; but if these indications were wanting, remedies likely to be successful, without detracting so much from vital power, were prescribed*.

On the treatment of adynamic or typhoid fevers at the period under consideration, reserving a more complete catalogue of remedies, selected with that view, until epidemics became more pestilential, and when the contrary indications to those in dynamic fevers became better marked—a few remarks here, and chiefly on the adaptation to transient changes of disease. (e. g.) Purgatives were very generally resorted to soon after Dr. James Hamilton's able treatise in 1799, but were for some time much abused, owing, chiefly, to neglect of his salutary cautions. The growing malignity of epidemics, however, in some measure demonstrated the extent of these abuses, and therefore led to a more guarded and less frequent administration of purgative medicines in the treatment of febrile diseases, and to confine them strictly to the due evacuation of the intestines. Dr. Hamilton's predilections in favour of purgative medicines, however, were so strong as to lead him to oppose other remedies. Owing to his high authority, he in some measure proscribed sudorifics, more particularly antimonials. Having contributed my aid to prevent the abuse of purgative medicines adverted to, by re-publishing Dr. Hamilton's cautions, and by publishing some cases of mixed fever, in which James's powder, especially when the head was affected, and others in which tartarized antimony was eminently useful, to restore antimonials to their due rank in the *Materia Medica*, I am the more desirous, on an occasion like the present, to refer to adjustments in the practice of physic which have been crowned with success†.

Warm or cold affusion, as recommended by Dr. Currie, was much employed at that time, if the circumstances he pointed out, namely, if vigorous re-action and high temperature justified it. These indications, however, as diseases became more pestilential in the same degree, became less and less observable‡. This, as well as the consequent disuse of that remedy, will be seen more clearly in the sequel. In mixed cases of fever, when inflammatory and typhoid symptoms, as often happened, were intimately blended, it was of the highest importance to have a remedy not contraindicated by either, yet consistent with the

ratio medendi in both—and barm or yeast, on account of some reports of its efficacy in putrid fevers, as tried by the Rev. Dr. Harwood and then published by the lamented Dr. Beddoes, seemed to me to promise favourably. The results of the extensive trial I had made among the sick poor of the Dublin General Dispensary, being decisive, I stated them in 1800, to Dr. Whitley Stokes, then a Fellow of Trinity College, and Professor of the Practice of Physic; and on reviewing the general and beneficial adoption of this remedy since, I trust I may be excused in adding, that I was the first physician who gave it an extensive trial and published the cases thus remedied*.

The principles and practice then generally taught in the public lectures, and adopted by the classes, though founded, as stated, on the eclectic method, and Hippocratican doctrines, were soon after as violently opposed as the most restrictive and arbitrary that preceded them; but the questions most constantly agitated were chiefly between those who held opposite sides with the rival systems of exclusive solidism and humoralism. Still, however the contending parties might affect to be wholly directed by Lord Bacon's method of induction from facts, to avoid those errors which they thus pretended to have detected, they continued to be guided in secret to a later period by a mixed pathology, based alike on morbid changes in the vital fluids, living solids, and some uninfluenced by either theory, prescribed remedies, wholly because they had been employed with advantage for similar symptoms.

The failure of the attempts to establish consistent theories on any exclusive system of pathology will become more manifest as we proceed with this sketch, as well as the idle vanity of disputes on the *prima et sola sedes morbi*, which have likewise retarded the improvement of the practice of physic. Morbid actions in the solids and morbid changes in the fluids were duly noticed, and were examined through the entire course of disease, without respect to the particular system in which they commenced. The nature of the disease, and the means of relieving it, were thus sufficiently ascertained for safe practice.

In thus, for the present, briefly touching on my objections to exclusive solidism, I mean to advocate the great advantages from unrestricted autopsy, before and after death, and should observe that stethoscopy was not wholly unknown to the practitioners of Dublin, that auscultation, unaided by an intermediate apparatus, was then found beneficial in exploring the morbid contents of

* Dublin Medical and Physical Essays, 1805.

† Treatise on Purgative Medicines, by J. Hamilton, M.D., Edinburgh, 1799.

‡ Essay on Cold Affusion in Fever, by Dr. James Currie, of Liverpool.

* Dublin Medical and Physical Essays, 1805. Transactions of the Association of the Fellows and Licentiates of the King and Queen's College of Physicians, vol. 1, Dublin, 1817.

the natural cavities, particularly of the thorax. It was practised, in 1796, by Dr. Perceval, in the Clinical Hospital, and by the late Dr. Wright, in the Meath-street Dispensary. Neither were the advantages common to it and cranioscopy neglected—such, I mean, as examining the external deformities of structure on the surface of the head, chest, and abdomen, and comparing them with the natural inequalities on these surfaces, so as to ascertain whether or not these were the result of morbid changes in the solids.

Autopsy, however, was not then limited to mere alterations of structure, either during the course of disease or after death, but, both here and in Edinburgh, was extended to morbid changes in the fluids. In 1797 and 1798, I witnessed in the Edinburgh hospitals the great advantages of such modes of inquiry into the nature of diseases, directed by Drs. Gregory, Rutherford, Hamilton, &c., whose accurate diagnoses, prognoses, and successful treatment must be recollected; likewise, how cautiously these eminent physicians noticed morbid changes in the fluids.

As the principles and practice just described nearly resemble those most generally adopted by the faculty during the succeeding years of this section, in following the progress of disease it will be only sufficient, in that entire period, to notice the theories by which these principles were assailed, or the modifications of practice which alterations in the characteristics of disease rendered indispensable.

(To be continued.)

—o—

Observations and Experiments upon the Function of the Cæcum. By Dr. Schultz, Professor of Physiology in the University of Berlin.

—

THE objects of this learned Professor in making his experiments were to ascertain; 1, the function of the cæcum; 2, the digestibility of the different articles of food; 3, the manner of the dissolution of the fleshy fibres in the stomach, according to microscopical observations; 4, the degree of acidity in the stomach and cæcum; 5, the degree of alkalescence of the food in the stomachs of ruminating animals; 6, the nature of the acids in the stomach; 7, the coagulation of milk by the saliva, stomach, &c.; 8, the saliva; 9, the nature of the bile.

He maintains that there are two digestions, one in the stomach, the other in the cæcum, and that the latter is more especially active when vegetable food has been ingested.

From the first experiment he learned that the degree of acidity in the cæcum is not always the same, that it is not always present, and that the food may even become alkaliescent. From the second, that this acidity was neutralized by long fasting, and thus allowed pure bile to enter the cæcum and neutralize its contents. From the third, that there is always bile in the course of the small intestines. From the fourth and fifth, that all the bile secreted by the liver during fasting, is by no means contained in the gall bladder, and that that part is very small compared with the large quantity that flows into the intestine during the empty state of the stomach. From the sixth, that though bile is always flowing, it never passes the cæcal valve during fasting, but collects on the upper side of it; it is only after perfect acidification, and at the beginning of the peristaltic motion of the intestines, that this bile flows into the cæcum. From the seventh, eighth, and ninth, that the degree of acidity and alkalescence of various parts of the digestive canal, vary with the length of time that has passed after feeding, and the degree of perfection of the gastric digestion, as also with the length of time which animals have fasted before feeding. From the tenth, that the quantity of digestible matter which is contained in the food has a great influence upon the degree of acidity in the cæcum. From the eleventh, that in carnivorous animals, when the cæcum and colon are but little developed, the food is for the most part digested by the stomach and small intestines, and the acidity in the cæcum is in general very weak, since the food, when it is here collected, contains little or no digestible matter.

The general results from the whole of the experiments we give in the author's own words; they are of the highest interest and importance.

Results of the experiments upon the cæcal digestion.—It may, therefore, be gathered from my observations and experiments, that the food in the cæcum becomes not only a second time sour, but that the acid chyme is there neutralized by the access of bile, in the same way as in the duodenum; so that after the employing of the intestines very different reactions may be produced according to pleasure. On account of this twofold consumption of bile in the stomach and cæcum, there is an antagonism between the two digestions, for when the bile is consumed by the diges-

tion in the stomach, the cæcal digestion cannot be perfected, and, on the other hand, when the bile flows into the cæcum, the neutralization of the acidity in the duodenum cannot take place. In those animals in which the cæcal digestion is most perfectly developed, this antagonism appears to be so arranged, that each digestion has its particular period of action, so that when the one is in action, the other is either lessened or at rest. In ruminating animals, it is very evident that the gastric digestion takes place more particularly during the day, and the cæcal at night, so that I think the gastric may very properly be called the diurnal, and the cæcal nocturnal, digestion.

"In carnivorous animals, however, the cæcum is so little developed, that the stomach alone furnishes nearly the whole process of digestion. These animals, therefore, have a preponderating diurnal digestion. This agrees with the fact, that carnivorous animals rest for the most part during the day, and at night become hungry, and seek their prey, and are, therefore, nocturnal animals, since their digestion takes place during the day.

"As the formation of the feces follows the perfected cæcal digestion, herbivorous animals are accustomed to discharge the greatest quantities in the morning and evening, and but very little during the day, and the healthy course of digestion. There appears to be something similar to this in man, in those ages where the cæcal digestion is most developed; in childhood, on the contrary, when the digestive apparatus resembles that of carnivorous animals, repeated discharges of excrement take place at indefinite periods of time.

"*The use of the valvula cæci in cæcal digestion.*—That the cæcal digestion may take place, it is necessary that the still digestible remains of the food should be rendered acid and changed into chyme, as in the stomach, before its mixture with the bile. This could not happen if the bile flowed continually into the cæcum, and it is therefore probable, that its opening into the small intestines is closed during chymification, as the stomach is closed during its digestion, only with the difference which the different state of the matter required. The stomach is closed during digestion at its pyloric orifice, to prevent the egress of the food, and the cæcum at its iliac opening, to prevent the ingress of the bile. This is my view of the use of the valvula cæci. I have not only found in general at the lower end of the *ileum*, an alkaline reaction, while the upper is still either sour or neutral, but at certain periods of digestion, a collection of pure bile at the iliac orifice of the cæcum. The contents of cæcum are at this time nevertheless sour. This would be impossible if the mouth of the cæcum were not closed during chymification. After the collection of the food, therefore, in the cæcum, its opening, like that of the bladder, uterus and stomach,

appears to be strongly contracted by its muscular fibres, and with the help of the valvula cæci, to be perfectly closed. The contrary is the case at the beginning of the peristaltic motion of the cæcum, and upon the opening of its iliac orifice the collected bile flows in. This agrees with the sensation of the ceasing of the peristaltic motion after the collection of the food in the cæcum, which I observed upon myself, and have described in my work (*de Alimentorum Concoctione Experimenta Nova.*) It appears to me, therefore, that the generally admitted explanation of Fallopius, according to which, the use of the valvula cæci is to prevent the return of the food from the cæcum into the *ileum*, is quite unfounded; for it may be easily seen that during excretion this backward motion is very possible.

"*Concerning the times for eating corresponding to the periods of digestion.*—The simple rule to eat as often as one is hungry, appears no doubt the most natural. I shall be able, however, to show that this rule is by no means universal, and in many instances even pernicious. I shall succeed best if I prove that one is often hungry without having the least real need of food, and that this hunger is better allayed by fasting than by eating.

"Hunger is the feeling of need of the nourishing parts of the blood, and is situated in that organ through which it is satisfied—the stomach. This appears to be the reason, why, when the stomach is empty, we hunger, and not when it is full, even when it is filled with perfectly indigestible matter, which cannot satisfy the true feeling of hunger. We cannot judge from hunger whether the food be digested, and the proper source of hunger satisfied; and, therefore, this feeling cannot be the only rule for eating, since a perfect and undisturbed digestion is necessary for the true allaying of hunger, and, therefore, when digestion would be disturbed thereby, it would be improper to eat, notwithstanding hunger may be felt.

"If we consider under this point of view the antagonism between the gastric and cæcal digestion, it follows, that, if both be excited at the same time, they will reciprocally disturb each other, and that for perfect digestion, and the proper formation of the blood, they must take place at different periods of time. My experiments show that, for the completion of the cæcal digestion, the bile flows through the small intestine into the cæcum, and the whole intestine becomes thereby more or less alkaline; but they also show, that if, during the cæcal digestion, the stomach be put in action, the flowing of the bile to the cæcum is stopped, and its digestion consequently hindered, since the chyme cannot be neutralized, and all the contents of the canal as far as the excrement become sour. The formation of the blood in the lower parts of the canal is hereby disturbed, and the gastric digestion is also rendered imperfect; so that the two digestions cannot take place

in their integrity at one and the same time. The completion, therefore, of the cœcal digestion is indispensably necessary to perfect digestion in general, and it becomes very important so to regulate the periods for eating, that the activity of the stomach may not disturb the digestion in the cœcum.

"If now, the cœcal digestion be considered more particularly as a nocturnal digestion, the meals should be so regulated, that, when this begins, the stomach may no more be put into action, or at least not overfilled. It is generally admitted that a man digests a moderate meal within three or four hours. My experiments, however, upon carnivorous animals, which digest much more quickly than the omnivorous, to which class man belongs, show, that six or seven hours are requisite for the digestion of a moderate meal, and that when dogs are allowed to eat as much meat as they will, twelve to fourteen hours are hardly sufficient for perfect digestion. The animals must even then be allowed to rest, for if they are made to exert themselves, the digestion is still further delayed, at least half the time longer. The observations which I made upon myself during the intermittent fever agree with this fact, and it may safely be assumed, that six hours are necessary for perfect digestion, that is, till all sour chyme has disappeared from the stomach. If now it be admitted, that, in the common mode of life, the nocturnal digestion begins about from seven to eight o'clock in the evening, the last meal ought to be taken so early, that by this time it may be for the most part digested in the stomach. In general, therefore, one should not eat after four o'clock in the afternoon, and evening meals should be altogether avoided: for, in proportion to the lateness of the hour and the quantity eaten in the evening, the more will the cœcal, and therefore also the gastric digestion, be disturbed, seeing that both must take place nearly at the same time.

"That this rule is not so applicable in youth, (as long as the gastric digestion resembles that of carnivorous animals, and for the most part finishes the process of digestion alone), as in riper years, follows from what has been already observed.

"The more the digestion is disturbed by continued large and late evening meals, the less perfect will be the preparation of the blood, and the more will the need of its nourishing parts, or hunger, be felt, particularly in the evening when the stomach is empty. This is the reason why those people who should eat least in the evening are most hungry at this time, and here more particularly does the feeling of hunger not correspond with the period of digestion; for the more such people eat in the evening, the more imperfect is their sanguification, and the greater the consequent hunger, since the food goes almost entirely unchanged through the alimentary canal, and the nourishment it

contains is lost to the body. The only means, therefore, by which this hunger may be properly appeased, is that by which the digestion may be restored, and sanguification amended, and that is, notwithstanding hunger, to abstain from food in the evening, that the gastric and cœcal digestions may not reciprocally disturb each other.

"The source of hunger will ever increase, by continually appeasing it by late evening meals, and in this way, therefore, it is as easy to starve from too much eating as from fasting: and no doubt in this way has many a person eaten himself to death, and most probably will still. We find in general that the meagerest and most sickly persons are the greatest eaters, and, on the contrary, the well-nourished and powerful eat less. That in the different condition of the digestive organs of different people, and according to the quantity of food which is taken during the day, there may be various changes and exceptions to this general rule, is self-evident. Where the youthful condition of the digestive organs is still vigorous, and the cœcum not as yet much developed, it is not necessary to be so particular about the smallness of the evening meals; and where there is in general but little taken during the day, and the quantity of food in the cœcum, therefore, small, more may be eaten in the evening, as there still remains a quantity of bile sufficient for the perfection of the cœcal digestion. The longer the fasting after meals, the more bile can flow into the cœcum after the ending of the gastric digestion, and the less fear need there be of evil consequences."

Reviews.

A Statistical Inquiry into the present state of the Medical Charities in Ireland, with Suggestions for a Medical Poor Law, by which they may be rendered much more extensively efficient. By Denis Phelan, Surgeon to the County Tipperary Gaol, and to the House of Industry and Lunatic Asylum, Clonmel, &c. 8vo. pp. 324. Dublin: Hodges and Smith. London: Longman and Co. 1835.

(Continued.)

WE now resume our review of this instructive and important work, and proceed to give some statistical details which show the comparative number and extent of English and Irish infirmaries and dispensaries. The author must have incurred a vast deal of trouble and expense in collecting his information, but the good which will result from it, both to the profession and public, must afford him the most gratifying compensation for his labours. The work is similar to

Mr. Lee's on Foreign Hospitals, which we also lay under free contribution.

The following report will be read with interest.

"Number, Extent, &c. of English Infirmaries.

"1st. The London hospitals for mere medical and surgical patients, exclusive of those for fevers, ophthalmic, venereal, and lying-in cases, contain at least 2,600 beds. If we suppose that these afford sufficient infirmary accommodation to the population of that city and those counties immediately adjoining it, viz. Surrey, Hertfordshire, Buckinghamshire, and Berkshire, (in which I am not aware that there are any such institutions), the remaining population of England will be about 10,811,000, that of the metropolis and these four counties being about 2,280,000, which is one bed for every 877 persons.

"2nd. From the Rev. Mr. Oxendon's valuable tables, and other sources of information, I find that in twenty-six English counties, whose population is 9,423,175, there are, at least, 3,573 infirmary beds, exclusive of others of which we have no correct returns. This gives one bed for every 2,692 of that population. Dr. Walker informs me, that the English provincial hospitals, not including houses of recovery or lunatic asylums, contain above 4,000 beds, 'probably,' he adds, 'not less than 4,500.' If taken at 4,250 there will then be one infirmary bed for every 2,543 of the above population of 10,811,000; and the proportion of beds which the London and provincial infirmaries altogether contain, viz. about 6,850, is to the whole population of England (13,086,675) as one to 1911. And let it be recollected, that these are independent of the numerous parish workhouses, a species of charities of which there are only eight or ten in Ireland, (but which here are county workhouses), which admit a great number of bad surgical and medical cases, generally chronic and incurable it is true, but such as I shall show, often occupy the too scanty wards of our Irish hospitals.

"3rd. The infirmaries of twenty-six English counties admitted 21,145 intern patients in 1828, being one for every 403 of the whole population.

"4th. The expenditure of the twenty-seven infirmaries of twenty-four English counties, (all that are given in Mr. Oxendon's tables), which admitted 20,705 interns, was 82,975*l.* in one year. Their population is 9,010,575, and were each individual equally assessed for the payment of this sum, it would be about 9*l.* 3*s.* 4*d.* for every 1,000 persons.

"Number, Extent, &c. of Irish Infirmaries.

"5th. The population of the city and county of Dublin is 386,694. Excluding, as in London, the hospitals for fever cases, lying-in women, &c., the Dublin hospitals

contain about 685 beds, or in the proportion of one bed to 564 persons. By this it appears, that, compared with the population which they have to accommodate, there are more infirmary beds in Dublin than in London. But the Irish provincial infirmaries contain only 1,262 beds, or one for every 5,827 of the population of Ireland excluding that of Dublin city and county. The total of infirmary accommodation in all Ireland is only 1917 beds, which is in the proportion of one bed to every 4000 of the population. And let it be borne in mind, that there are no institutions like the English parish workhouses, to act as temporary substitutes here, the few county workhouses, eight or ten, being on too limited a scale, and chiefly appropriated to other purposes.

"6th. The Dublin hospitals, (of the infirmary class), admitted 7,114 interns in one year; of these 4,795 were residents of the city, and a circle of about five miles around it; the remaining 2,319 came from beyond that distance; several from the more remote counties. Taking the population of Dublin, and of the country for five miles around it, to be 315,000, there was then one hospital intern for every 66 persons residing in the city and within that circle.

"7th. On an average of three years' returns, (1825, 1828, and 1832), all the Irish county infirmaries admitted 7,846 interns annually, and the others belonging to cities and towns, 2,104, making a total for all the provincial infirmaries, of 9,950 interns in a year, which is in the proportion of one to every 746 of the population. But if we add to this number those admitted into the Dublin hospitals, and who resided in the country, viz. 2319, we shall have a total of 12,269, which is in the proportion of one to every 608 persons.

"8th. A population of about 120,000, that of the city and suburbs of Cork, supplies the north and south infirmaries with 337 interns yearly; that of Waterford and suburbs is about 33,000, and it sends an average of 430 interns to the leper hospital yearly. About 66,000 in Limerick and its liberties, supply the Barrington (city) hospital with 457 interns; the cities of Kilkenny and Londonderry, and the towns of Wexford and Mallow, whose joint population is about 62,000, supply the four county hospitals with 328 interns annually; whilst from the remaining population of the counties of Kilkenny, Londonderry, Wexford, and Cork, viz., 1,514,777, (excluding that for the city of Cork and suburbs), only 958 patients were admitted. This gives 1,552 intern patients for a total population of 281,000, of seven cities and towns, or in the proportion of one to 181, whilst the remaining population of these six counties, amounting to 1,695,000 is only accommodated with beds for 1,254 patients, or one for every 1,351 persons.

"9th. Ten Irish county infirmaries ad-

mitted 2,679 intern patients in one year. The total population which supplied this number was about 2,591,000. I have ascertained that no less than 1,390 of these patients were residents of the districts included in a circle of five miles around these hospitals; and that the population of these ten districts is about 334,000. The remaining 1,289 interns resided in different parts of these counties, at a greater distance than five miles from the infirmaries. Those who resided contiguous to these institutions, therefore, supplied one intern for every 247 of the population, whilst the more distant only furnished one in 1,751.

"10th. The only governors of an infirmary in Ireland, that I know of, who publish an account of the number of *fit objects which they are obliged to refuse annually for want of funds*, are those of the Queen's county. In four annual reports of that institution, which now lie before me, for in the years 1828, 1830, 1831, and 1832, the governors state in each report, that '*applications by objects in extreme want of the benefits afforded by admission into the infirmary were made, and the board reluctantly compelled to reject them in consequence of insufficiency of funds for their support, and from that cause alone.*' The number so refused was 2,212 in four years; that admitted 2,406. With the exception of three infirmaries, all those from which I have had reports are stated to have refused a considerable number annually, but no account of the numbers refused has been kept, except at Maryborough.

"11th. There are only thirty-six cities and towns in Ireland in which there are any infirmaries. Their joint population is about 736,638. Twenty-two of these places contain a population under 10,000 each; and and fourteen under 5,000 each. There are 230 other towns in Ireland varying in population from 17,000 to 1,000 each, in which there is no infirmary, and containing a population of 532,086; and the greater number of these are so remote from any county or other infirmary, that those who reside in, or contiguous to them, derive very little benefit, many none whatever, from these institutions, as I shall prove in a subsequent part of this work.

"12th. The total annual expenditure of all the provincial infirmaries is 27,990*l.* 17*s.* 8*d.* on the average of three years. This, for a population of 7,356,200, is at the rate of 3*l.* 15*s.* 10*d.* for every 1,000 persons, not quite one penny for each.

"The conclusions to be drawn from the above facts, and from many of a similar kind, which will be given in the progress of this work, are:

"1st. When in a rich country, hospital accommodation is found necessary in the proportion of one bed for every 1,911 of the whole population, one bed for 4,000 must be insufficient in a poor one, such as Ireland, even admitting that considerable less acci-

dents must occur in the latter, from want of manufactories, collieries, &c.

"2nd. That when in England the provincial infirmaries contain one bed for every 2,543 of the population, and are usually fully occupied, one bed for 5,827 of a poorer people cannot be sufficient.

"3rd. That when a rich country supplies its provincial infirmaries with one patient for 403 of its population, those of a poorer, which only admit one in 746, must be insufficient.

"4th. That when a population of about 315,000 of the city and neighbourhood of Dublin, supplies the metropolitan hospitals with cases considered serious enough to be made interns, in the proportion of one to sixty-six, and that of Cork, Limerick, Belfast, &c., in the proportion of one to 181, the sick poor of other towns and districts which are very extensive, and very populous, cannot be done justice to, when only one in 1,351 is admitted.

"5th. That Irish county infirmaries, though receiving patients from all parts of their respective counties, are chiefly useful to the population of the district within eight or ten miles of them; and that such must necessarily always occur under the present system, when more than two-thirds of the population is at such a distance from the hospital, that the most serious surgical and medical cases either cannot bear removal, or if removed, cannot be admitted for want of room, or of funds, or both."

The next two sections of the work relate to fever hospitals and dispensaries in Ireland, and conclude the introductory remarks. They are well worthy of perusal.

"Facts respecting Fever Hospitals.

"1st. Doctors Barker and Cheyne, in a work published by the authority of the Irish government, state, that during two years and an half of the epidemic fever of 1816, 1817, and 1818, no less than one million and an half had fever in Ireland, or nearly one-fourth of the whole population; and that the deaths amounted to 65,000 during the same period. By a careful examination of this valuable work, I find, that though the epidemic raged in all parts of Ireland, and the most laudable exertions were made by the government, and a great portion of the wealthier and middle classes, only seventy-two fever hospitals were established throughout the kingdom, though the idea of contagion haunted every mind, and houses of recovery, and whitewashing, were looked on as essentially necessary to check the epidemic. The population of the seventy-two cities and towns in which these hospitals were got up, and of a district of three or four miles around them, was about 1,455,168, so that there still remained, as I shall afterwards shew, at least 4,317,248 persons who were unable to avail themselves of fever hospital

accommodation for such amongst them as became affected.

"2nd. Fever has been seldom less prevalent than in the three years ending 1831; yet, during these years the Cork-street and Hardwicke fever hospitals, in Dublin, and the fever wards of the new Meath hospital, admitted 5,702 fever patients annually, giving a proportion of one to 66½ of the whole population of the city and county of Dublin, *from which alone, with so few exceptions as scarcely to deserve notice, they were sent.*

"3rd. The forty-six provincial fever hospitals given in the parliamentary report of 1832, admitted 7215 cases annually, on an average of three years. I know of sixteen others, from which, though then established, no returns were given, and which are on as extensive a scale as the former. We may, therefore, fairly assume, that these sixteen hospitals admit fever patients in the same proportion as the forty-six; the total admissions for the sixty-two must then be about 9,724 annually, and including those received into the Dublin fever hospitals, 15,426. The county fever hospitals, therefore, admit one patient for 760 of the population.

"4th. By very accurate returns with which I have been favoured by the medical officers of twenty-three provincial fever hospitals, I find that these twenty-three admitted 5,516 in one year (1833), *of whom 4,499 resided within five miles of these institutions, and 1,017 came from a greater distance, but very few beyond eight or ten miles.* The population which supplied these 4,499 was not above 300,000, and that which furnished the 1,017 about 250,000, which gives one fever patient for every sixty-six persons *within five miles of a fever hospital, and one for 236 beyond that distance.* To these facts I request the reader's attention, for reasons to be hereafter explained.

"5th. The population which supplies these 5,516 patients to twenty-three fever hospitals being about 550,000, that from which the sixty-two are chiefly supplied cannot be above 1,483,000. Add to this the population of the county and city of Dublin, (380,165), we have the total of that which, from its contiguity to fever hospitals, is enabled to derive any advantages from them; leaving about 5,284,000 persons, whose remoteness from these institutions, with other causes to be explained, render it quite impossible for them to derive any whatever.

"6th. Calculating the number of fever cases that annually occur in Ireland in ordinary seasons, from data which will be hereafter given, I am of opinion, that it cannot be under 107,800, or one in seventy-two of the whole population: and as only about 15,436 of these get fever hospital accommodation, 92,274 must pass through the disease in their own residences.

"7th. As Leinster contains twenty-eight fever hospitals, Munster twenty-nine, Ulster seven, and Connaught two, the relative

number relieved and unrelieved in each province may be readily estimated; especially if the reader bear in mind, that fever patients rarely come to these institutions from beyond a distance of six or eight miles; the greater number only from within four or five.

"The conclusions to be drawn from these facts, and others of the same nature, are too obvious to require that they should be fully stated here. They prove that when fever becomes epidemic, *there has not been, and there is not, any machinery at the command of the public authorities at all adequate to meet the emergency—that even on ordinary occasions wherever there are fever hospitals, it is found that fever does occur in the proportion of one patient, at least, to every sixty-six of the population—and that a vast number of persons are so circumstanced as to be totally deprived of any of the advantages attending fever hospitals.* These, with other circumstances, to which I shall hereafter more particularly refer, prove how very inadequate our fever hospitals are, as at present managed, or indeed however well managed, to answer the purposes for which they were intended, to meet the wants of the sick poor labouring under fever.

"Facts respecting the Inefficiency of Dispensaries.

"1st. Numerous as these institutions are, I could point out many populous districts of eight, ten, and twelve miles in extent in which there are none.

"2nd. In a great many counties the number of these charities is too few for the population. For instance, in the county of Down, they are to the whole population only as one to 35,000; in Leitrim, as one to 23,000; in Longford, one to 27,000; in Galway, one to 28,000; in Monaghan, one to 24,400; in Antrim and Fermanagh, one to 21,000; in Carlow, one to 20,000. *In Mayo no Dispensary has been presented for these two years.* As each Dispensary has usually only one medical officer, it is impossible for him to attend the sick poor of such large populations, as I shall explain in a future chapter.

"3rd. A considerable number of our dispensaries are attended by non-resident medical men, many of whom live at such inconvenient distances from their respective districts, that with all the attention I know some of them discharge their duties, it is often physically impossible they could do so efficiently, or that the sick could obtain that prompt medical attendance so essentially necessary in dangerous cases."

The facts accumulated by Mr. Phelan, will enable the legislature to form a correct conclusion as to the present state of hospitals, infirmaries, fever hospitals, and dispensaries in England and Ireland. This was the object of the author, and he has successfully attained it. His work will materially contribute to the cause of medi-

cal reform; and to the improvement of public charities in Ireland.

Our author now commences his work, and his first chapter is entitled "Classification of Irish Medical Charities." This is brief, and is as follows:

"Classification of Irish Medical Charities."

"The medical institutions intended for the relief of the sick poor of Ireland, may be classed under the following heads:

"1st. Those which are entirely supported by annual parliamentary grants; of this class I know only of four, viz., the Westmoreland Lock Hospital, the Richmond Surgical Hospital, Whitworth Medical Hospital, and the Hardwicke Fever Hospital, all in Dublin,

"2nd. Those entirely supported by funds left in trust by individuals, as the Leper Hospital in Waterford.

"3rd. Such as obtain parliamentary aid in addition to the properties willed by individuals, but for which, neither county presentments, nor private subscriptions are had, as Stevens' Hospital in Dublin.

"4th. Such as obtain parliamentary aid in addition to private subscriptions and donations, as the Cork-street Fever Hospital, and the Hospital for Incurables in Dublin.

"5th. Charities supported by parliamentary grants, by private subscriptions, and by the income arising from properties of various kinds, as the Rotunda Lying-in Hospital, in Dublin.

"6th. Charities whose funds are chiefly supplied by subscriptions, by county presentments, and by parliamentary grants, as Mercer's and Jervis-street Hospitals, in Dublin, all the county infirmaries, and the Limerick Fever and Lock Hospital.

"7th. Those entirely supported by county presentments, as all the district lunatic asylums.

"8th. Those supported by county presentments, and by private subscriptions and donations, as all the fever-hospitals (except the Cork-street and Hardwicke) and dispensaries.

"9th. Charities whose support arise from properties left in trust, and from the fees paid by the medical pupils, as Sir Patrick Dun's Hospital; or by private subscriptions and such fees, as the Baggot-street Hospital.

"10th. Charities entirely supported by private contributions, as many ophthalmic and lying-in institutions, in the large cities and towns, and a considerable number of dispensaries, for which, latterly, presentments have not been obtained.

"From this variety in the mode of obtaining funds for our medical charities, it is evident, that there must be considerable diversity in the constitution and management of the different classes, even of those hospitals which are all equally intended for the admission of surgical and non-contagious medical patients."

Relating to Irish Medical Charities;" and contains a correct and full account of the various legal enactments upon the subject. These we must quote at length.

"Acts relating to Irish Medical Charities."

"A short account of the principal clauses of the acts of parliament which regulate our county infirmaries, fever hospitals, dispensaries, and lunatic asylums, appears necessary to enable the reader to perceive the advantages as well as the defects of these valuable charities; especially as I shall have to shew, that some of the chief defects of the first depend on particular clauses of these acts, which, if I am right, require to be revised and amended before any great improvement can take place in respect to these institutions.

"Acts relating to County Infirmaries."

"The 5th and 6th Geo. 3, (of the Irish parliament,) made provision for the erection and establishment of one infirmary for the relief of the infirm and diseased poor in each county in Ireland. In twenty-three counties, the act directed that the hospital should be built in or near the county towns, without any reference to the convenience or inconvenience of such situations to the majority of the population; many of these places being at the extreme end of the county.

"In seven counties, a site remote from the assizes town was specified. The counties of Dublin and Waterford were entirely omitted, probably, because there were hospitals in each, viz., Stevens', the Meath, and Mercer's, in the former, and the Leper Hospital in the latter. The primate, lord chancellor, bishop of the diocese, and the rector or vicar (of the parish in which the infirmary was directed to be built), along with donors of twenty guineas, and annual subscribers of three guineas, form a perpetual corporation, for the management of such infirmaries.—The act states, that "no person shall be capable of being elected, (surgeon) who shall not have served a regular apprenticeship of five years to a surgeon, and have likewise undergone an examination before the surgeon general, the visiting surgeon, the two assistant surgeons, and the resident surgeon of Stevens' Hospital, and the five senior surgeons of Mercer's Hospital," and that he shall produce their certificate, "that he is qualified to be a surgeon to said infirmary." The election of the surgeon was then, as it still is, in the hands of this corporation.

"By this act, the sum of 100*l.* a year is ordered to be paid each infirmary surgeon by the public treasury, a provision which is still in force; and grand juries were authorized to present from 50*l.* to 100*l.* a year on each county, for the use of its infirmary. The north and south Cork infirmaries, which before were supported by voluntary subscription, were allowed 50*l.* a year each, by grand jury presentment, and a similar sum from the treasury; and a like provision was made

in respect to the Inn's Quay Hospital, (Jervis-street,) Mercer's, and the Incurable Hospital, in Dublin; the county presentments for these being limited to 150*l.* a year.

"The next act, 7 and 8 Geo. 3, provides, "that no person shall be appointed physician to any county infirmary, who shall not be examined and certified to be duly qualified, under the seal of the King and Queen's College of Physicians in Ireland." This was the origin of the exclusive privileges enjoyed by Dublin medical and surgical graduates, in being alone eligible, as physicians and surgeons to county infirmaries in this kingdom.

"The act of the 36 Geo. 3, extended this exclusive privilege to the members and licentiates of the Dublin College of Surgeons. It provides, that 'no person shall be capable of being elected surgeon to a county infirmary, who shall not previously have obtained letters testimonial of his qualification, under the seal of the Royal College of Surgeons in Ireland, and that no other qualification or examination shall be necessary.'

"The 45 Geo. 3, enabled grand juries to present 600*l.* a year on each county for the infirmary. In this act provision was first made for the establishment of dispensaries in Ireland. It states, that '*the distance of many parts of each county from the infirmary therein established, does not allow to the poor of those parts the advantages of medical aid and advice, which such infirmary was proposed to afford*;' a state of things, which I shall just now shew, applies to the present as well as to the period at which that act was passed.

"The 46 Geo. 3, makes provision for obtaining information respecting county infirmaries, and the application of their funds, by making it imperative on the governors of each infirmary, to transmit an annual statement to the commissioners of imprest accounts, detailing all such circumstances as might be supposed necessary to be communicated to the government, or the legislature. And the same act provides, but in a very inefficient manner, as the result has shewn, for the inspection of county infirmaries. It directs, that on a representation being made to the Lord Lieutenant of Ireland, by the commissioners of imprest accounts, '*it shall and may be lawful for him to give directions to the inspector general of prisons in Ireland, or such other person as the Lord Lieutenant may deem most eligible*,' to visit, inspect, and report on, the state, management, &c. of these institutions.

"The 47 Geo. 3, extends the infirmary acts, which before were only in force in counties, to such counties of cities, and counties of towns, as no local act had been passed for.

"The 49 Geo. 3, extends to counties of cities, and counties of towns, the provisions of the forty-fifth of the same reign, relating to raising any sum, not exceeding 500*l.* a year, in counties at large; and it provides,

that if there are two infirmaries in any such place, the 500*l.* shall be divided between them in equal shares.

"The 54 Geo. 3, made provision for enabling grand juries to present an additional sum of 100*l.* a year, to be paid the surgeon of each infirmary, whether of a county, city, or town, in addition to the 100*l.* a year to which he was entitled from the public treasury. The preamble states, 'and whereas the said sum,' (of 100*l.* paid by the treasury,) 'from the great increase in the necessities of life, and other circumstances, is inadequate to the fair remuneration of the services of such surgeon; and in consequence thereof, it has been found impossible in some counties to procure persons properly qualified according to law, to accept such situations.' It also directs that a certificate of good conduct, and a copy of the letters testimonial of the surgeon, shall be laid before each grand jury so presenting this additional 100*l.* And, as a condition on which the salary is to be presented and paid, the infirmary surgeon is, by this act, required to give 'his attendance and professional assistance, without any other, or further fee or reward, to the prisoners and others in the gaol of the county, to the infirmary of which he is surgeon, if such gaol is within five miles of such infirmary.'

"Hitherto subscribers of three guineas were empowered to vote at all meetings of governors, the power of doing so commencing on the 25th of June next following the payment of their subscription. But by this act, no annual subscriber is permitted to vote at any election of an officer in an infirmary, unless his subscription has been paid two years before such vacancy occurred; a regulation which it would appear has greatly affected the funds of these institutions though it had not the effect of preventing the practice of new voters taking a share in such elections, the object contemplated by the framers of the act.

"This act contains another, and a very important clause, but one which must have been, as it has been, inoperative, in consequence of the machinery by which it was directed, or rather permitted, to be put into execution. It provides, that, 'whenever the governors of any county infirmary shall deem it expedient to establish a second within the same county, it shall and may be lawful for them to do so, taking care that such infirmary shall not be situated within ten miles of the first,' and it further adds, that whenever two such infirmaries are established, the surgeon and apothecary of each, are entitled to receive one half of the emoluments provided for surgeons or apothecaries of infirmaries; that is, each surgeon is entitled to 100*l.* a year in place of 200*l.*; each apothecary to 15*l.* in place of 30*l.*, marked out by the same act as the maximum of his salary. And the surgeon of such second infirmary must also be

a graduate of the Dublin College of Surgeons.

"I shall, hereafter, shew how little probability there could be, that under this act, additional infirmaries should be built, as the only parties intrusted with the power of deciding on the erection of such second hospitals, are those that have the greatest interest, that there should be only one infirmary, and whose feelings must be most adverse to any additional one.

"The clause which provides for the payment of a *maximum* salary of 30*l.* a year, to the apothecary of an infirmary, makes it imperative, that he 'shall have duly served an apprenticeship,' by which wording, licentiates of the London Apothecaries' Company are qualified, as indeed they ought to be, to hold such situations, though otherwise disqualified by the Irish apothecaries' act from practising in this kingdom.

"By the 1 and 2 Geo. 4, those provisions of acts which vest in commissioners for building gaols and lunatic asylums in Ireland certain powers for the valuation of any fit premises for such institutions, is extended to the governors of infirmaries, who are thus enabled to select the most wholesome and convenient sites, paying only according to the valuation of a jury empaneled by the high sheriff.

"The act of 1833, called the Marquis of Westmeath's, though differing widely from that most extraordinary, and I may well add, most injudicious one, introduced by that nobleman, provides, that life-governors of infirmaries—donors of twenty guineas—shall not have the power of voting at any elections of medical officers for twelve months after the payment of such donations. This act, as well as the grand jury bill of the same date, continues the monopoly of the Dublin colleges.

"The Irish grand jury act of 1833, makes it imperative on the surgeon of each county infirmary, to send, before the special sessions assembled for the consideration of presentments, an account of the number of intern and extern patients treated since the date of the preceding presentment: and the treasurer is also obliged to lay before them a certificate, signed by five governors, that such surgeon has faithfully executed his duty, and is a graduate of the Dublin College of Surgeons; without which, the additional sum of 100*l.* a year, (which the Marquis of Westmeath's act makes it imperative on the governors to apply for the use of the surgeon exclusively, and which before it was optional with them either to give or withhold), cannot be granted.

"An act of the Irish parliament, the date of which I forget, made a very strange alteration in the financial affairs of the Queen's county and Tipperary infirmaries. Leaving the donation for a life-governor still at twenty guineas, it enacted that the sum to constitute an annual governor should be only one guinea; and that on the pay-

ment of the latter sum for ten years in succession, such subscriber of only ten guineas in the course of ten years became a life-governor, though one paying down a lesser sum than twenty guineas at one time would not be entitled to the same privilege. I have reason to know, that both institutions have suffered considerably from the effect of this unaccountable act."

(To be continued.)

—o—

A Series of Botanical Tables and Tables of the Materia Medica, designed for the Use of Students preparing for Examination at Apothecaries' Hall; illustrated with numerous Engravings on Wood, and Four Coloured Medico-Botanical Maps of Europe, Asia, Africa, and America, shewing the Geographical Situation of all the Plants in the Pharmacopœia. By W. K. TOASE, F.L.S., Lecturer on Botany and Anatomy. 4to. London: 1835. Longman and Co. Four Coloured Maps. Price 4*s.*

THIS is an exceedingly useful work to medical students, and ought to be in the possession of every one of them. The tables are most instructive, and the coloured maps contain the names of the medicines which each country supplies.

Table 1 contains a key to the Linnæan system, with a corresponding arrangement of medical plants. Each class is illustrated with a wood-cut, and all the medicines belonging to it enumerated.

Table 2 contains a key to the Jussieuian system, with a corresponding arrangement of medical plants, illustrated with wood-cuts. Then come four coloured medico-botanical maps of Europe, Asia, Africa, and America. These maps alone are worth the price of the whole work.

Table 3 shews the parts used, properties, doses, active principles, pharmaceutical preparations, and forms of exhibition of medical plants, with a reference to their Linnæan and Jussieuian classification.

Table 4 shews the atonic compositions, properties, doses, pharmaceutical preparations, and methods of obtaining these articles of the materia medica, which are not contained in the preceding table.

Thus the student has, in a concise form, what he requires on botany, materia medica, doses of medicines, forms of prescribing, and atonic composition. The book is an excellent one for those preparing for examination at Apothecaries' Hall. It only requires to be known to be encouraged.

MEDICAL INSTITUTIONS IN IRELAND.

To the Editor of the London Medical and Surgical Journal.

Statistical Inquiry into the Present State of the Medical Charities of Ireland, with Suggestions for a Medical Poor Law. By DENIS PHELAN, Surgeon to the House of Industry and Lunatic Asylum, &c. Clonmel, &c.

PERMIT me, as one of your constant readers, to draw your attention, and that of the profession at large, to a work which has just made its appearance, on the present state of the medical charities in Ireland. The author, Mr. Denis Phelan, was one of the few Irish county practitioners that were examined before the medical education committee last year; but since that period he has collected together, not without great expense and immensity of labour, a vast mass of documents from every part of Ireland, shewing the many glaring defects under which most of the Irish medical charities labour: a work of this nature was long wanted, and will prove of the highest value to those members of the legislature who feel an interest in such subjects, as well as to the medical profession, and to such governors of hospitals and dispensaries, &c., as are anxious to improve their respective institutions. It seems, from a variety of causes, the want of adequate regulations, neglect of governors, and a vicious system of management, that numerous as the medical charities in Ireland are, and large as the sums appear which are annually expended in their support, a *vast portion of the sick poor of that country neither do, nor can obtain relief by their means.* Many curious statistical facts are here for the first time noticed; and some of the highest importance, as shewing that the present system of medical relief is highly objectionable; that the infirmaries have not dispensaries connected with them; that though considerable sums are expended in fees to medical officers of infirmaries, yet that the system of visiting the home patients, who cannot attend the infirmary, is very rarely practised; that such is the locality of the Irish county infirmaries, that often more than two-thirds of the population are at such a distance from the hospital, that they cannot avail themselves of its aid, and that above all, there being only one medical officer to such hospital, the duty is usually most imperfectly discharged. It will sound curious to those familiar with the character of English hospitals, to learn, that in the county infirmaries of the sister kingdom, no competent medical officer permanently resides in these hospitals, and that in every county in Ireland (Limerick and Louth excepted), there was only one medical officer or surgeon to the infirmary. Most of these medical officers or surgeons are in *full private practice*, and are often called

many miles distant to visit a private patient; and where (as must often be the case) any of these casualties occur which require prompt assistance, where is it to be found? Nay, in a great many hospitals, the apothecary is non-resident; he has a shop in the town, has his own private business to look after; and when, in the surgeon's absence, an unfortunate patient comes in with a bad compound fracture, or an aneurism bursts, or hemorrhage suddenly takes place from a stump after amputation, he also, perhaps, is as difficult to be found as his superior. Even two medical officers, if they have only a moderate share of private practice, would be insufficient to attend to an hospital with forty or fifty beds, and devote a reasonable portion of time to attendance on the out-patients, and visit them, when necessary, within a reasonable distance. The non-appointment of a second medical officer is shewn by the able author of the present work, to be fraught with the greatest injury to the poor, as well as an unjust attempt at monopoly. Of the truth of this, the present work abounds with ample illustration. The poor of Ireland, as well as the profession and public at large, owe a deep debt of gratitude to our talented author for the uncompromising manner in which he probes the many abuses to the bottom. The work abounds with a large body of evidence relating to every branch of medical charity, and with a detail of many very useful suggestions and enlightened observations on the best mode of removing the various defects and abuses now existing. It is impossible, even in a cursory manner, to glance at the multitude of objects comprised in this most useful volume, which ought to be in the hands of every person engaged professionally or otherwise in the superintendence of medical charities. On the subject of gratuitous attendance on the part of medical officers, our author has the following observations, which seem to coincide with the opinion maintained with great ability in one of your late numbers:—"Is it ever found, he asks, that duties which require considerable personal and mental exertion, day after day, and month after month, are well performed gratuitously? Do lawyers, attornies, or even clergymen, give their services on such conditions? why then should medical men be expected to do so? But if from competition and other causes, some young and comparatively inexperienced person offer to fill such situations, is it in human nature that they will toil and search without the prospect of any compensation?" He gives the Dublin Lock Hospital as an illustration of this, which was at first attended gratuitously, but it was found expedient to alter the system. "When a daily and laborious duty is required," he adds, "as in hospitals combined with dispensaries, it should always be borne in mind, that it must be entrusted to the youngest and least experienced, for

the medical man of character and standing will not undertake it. He does not require such adventitious aid, he has already reached a certain rank in his profession, and though such may not be the case in England, it is a well known fact, that in Ireland the physician or surgeon that is known to devote much of his time to visiting the poor, or that attends a dispensary, I mean in a town of any considerable population, *is sure to be least employed, and to suffer in a pecuniary sense for his humanity.* Gratuitous attendance, therefore, must always have this effect, and the services of those of more mature judgment cannot often be made available for the poor under such a system." Among other improvements, he enters largely into his plan of establishing district dispensaries, and gives a succinct view of the probable expense of erecting and establishing such district general hospitals and dispensaries, as well as the sources from which funds may be raised for their support. There is also a useful chapter on the mode of ascertaining the objects entitled to receive relief from medical institutions, together with suggestions for a medical poor law for Ireland. Nor does he omit an account of the district and other lunatic asylums, and the statistics of houses of industry. In short, this able writer has neglected no department of his subject, and his suggestions are such as must command attention. There will not be wanting interested men in the profession in Ireland who will maintain existing abuses, but let the present work be read in both countries, and it will not be long before the exposure of abuse will be followed by correction and removal.

MEDICUS.

—o—

A REMARKABLE CASE OF GALL-STONES,
CONNECTED WITH DELIRIUM TRE-
MENS.

To the Editor of the London Medical and Sur-
gical Journal.

SIR—If you consider the following case worthy of notice, perhaps you will give it a place in your valuable journal.

I am, Sir, your obedient servant,

H. S. CALDWELL, M. D.

Camberwell, Oct. 23, 1835.

Mr. B., who is about fifty years of age, was formerly an officer in the navy, and has, for some years past, been living upon a comfortable independency. His habits were generally considered sober, although not unfrequently, he had recourse to spirits to aid digestion.

About the beginning of May last, I was called up in the night to visit Mr. B. His countenance was then pallid, although agitated, tongue white, clammy, and tremulous, hands very unsteady, pulse and skin quite natural, the whole system free from pain.

But what had produced the present alarm was, a distressing delusion, under which he had been labouring for several days, that his wife was endeavouring to wean from him the affections of his son and daughter, by a former marriage. The absurdity of this was evident, and reasoning had a momentary effect of quieting him on the subject. But after a day or two, he became so ungovernable that it was requisite to place him under restraint. For about two months he derived much benefit under the judicious care of Dr. Uwins at Peckham Asylum, and his mind having become more composed, he was allowed to return home. After Mr. B. left the asylum, I occasionally attended him, and his general health, which was greatly debilitated, seemed to improve, but there were at times symptoms about him which threatened a relapse.

On Monday, August 30th, Mr. B. was seized while at church with severe pain in the epigastric region, which was relieved after taking some ol. ricini. On the following evening the pain returned. I then saw him rolling upon a sofa in great agony. The pulse and skin were natural, the pain *not* increased by pressure. Anodynes and antispasmodics were administered, but produced no relief. In a short time, the urine became exceedingly high-coloured and muddy, while the feces, on the contrary, were remarkably pale. As some obstruction appeared to exist in the biliary ducts, Mr. B. was treated accordingly. Previous to the 6th of September, there was no fever; the pulse then rose to above a hundred, and an acute pain was now felt under the edges of the ribs in both sides, as also under the scapulæ. After the application of leeches, the pain subsided, and the pulse fell to eighty. After this, the white of the eyes became yellow, and gradually in succession, the whole surface of the body. The tongue, as usual, was clammy and tremulous, but except in the commencement of the attack, there was neither nausea nor sickness, and during the intervals of pain, the patient relished his food as usual.

On the 8th, while under the influence of medicine, something was heard to rattle in the night-pan, which proved to be nine gall-stones, the colour of verdigris. Next day he passed five more, and on the following day, one.

A favourable change now took place in Mr. B.'s appearance and feelings, which was very evident to all who knew him. An aperient mixture, containing hydriod. potassæ, as previously prescribed, was taken daily, and all went on well until the 29th, when the pain again returned, and continued violently for six hours, without intermission. Next day he passed ten more gall-stones. On the following day, October the 1st, three; and on the 2nd, two; in all, 29 calculi, which are at present in my possession. Ten of them are as large as a middle-sized hazel nut; the

others somewhat smaller, and nearly of a triangular form; the whole weighing 163 grains.

After passing these calculi, the excretions gradually became natural, and a very remarkable improvement has since taken place in Mr. B.'s health, both in body and mind. His complexion is now clearer than it has been for years past; and his *temper*, instead of being irritable and captious, has, to the great comfort of his excellent wife, become mild and agreeable.

P. S. This case is also well known to — Phillips, Esquire, surgeon, Albion-street, Hyde-park Terrace.

—o—

CAPSICUM IN VARIOUS DISEASES.

To the Editor of the London Medical and Surgical Journal.

SIR—I shall feel much obliged to you for an early insertion of the following communication in your valuable journal.

I am, Sir, your obedient servant,

A. TURNBULL, M. D.

48, Russell-square, Oct. 13, 1835.

Having used capsicum in various forms in amaurosis, weakness of sight, and deafness, with great benefit, I am desirous of imparting this information for the benefit of others. I shall not at present relate any cases, but reserve them for a future period, when I have accumulated still further experience upon this subject, upon which I have been engaged for the last eighteen months.

The first form is that of tincture, made by macerating one pound of powdered capsicum in two pounds of alcohol for seven days, and filtering. In diseases of the eye, this tincture is to be rubbed over the whole of the forehead and temples for fifteen minutes once a day, and should not be washed off before the expiration of six hours. For diseases of the ear, the same tincture is to be rubbed over the mastoid process, and in front of the ear, and to be allowed to remain for the same length of time.

The second form is made by evaporating the tincture to a thin extract, and is to be used in the same way by friction and allowed to remain for the same length of time. The third form is made by mixing one dram of the extract above mentioned with one, two, or three drams of lard, and to be used in the same way.

In some cases I have first rubbed the tincture for five minutes, and then applied the extract or ointment immediately afterwards, and allowed it to remain for six hours.

The effects of these applications are great heat and redness, which continue for some hours, when they disappear, leaving the part upon which they have been rubbed in a perfectly natural state.

—o—

DEFENCE OF THE NEW POOR LAW.

To the Editor of the London Medical and Surgical Journal.

SIR—Although a shelf of my library begins to groan under the weight of the London Medical and Surgical, yet have I never found occasion to protest against the reasoning of its editor until now. The following remarks on the report of the poor law commissioners I cannot pass over without saying a few words:—

“They (the commissioners) advertise for the lowest bidders, and obtain young and inefficient officers. They seem to consider disease among the poor unworthy of the best treatment.” Presuming to appoint myself pleader for the defendants, *i.e.* the young men of inexperience, let us proceed to argument.

The fact, sir, is notorious, that when an old practitioner is parish surgeon, the paupers are invariably consigned to the care of his assistant. The great man may now and then condescend to see one of the “*interesting cases*,” but his calls are “*like angels’ visits*,” nor is it to be wondered at—how is it possible that one in extensive practice can visit a number of private patients scattered east, west, north, and south; and see also a host of parish poor. Now, supposing the assistant to be equally skilful with a young man who has just begun to practise in a parish—which think you is most likely to exert his talents for the benefit of the sick? he who is seeking a practice and knows that the good name he obtains among the poor will lead to his future advancement, or he who has no spur of action but his (too often pitiful) salary, and who in many, very many instances, is glad to run over the paupers as fast as he can, in order to get home, and compound a formidable list of draughts, &c., for his master’s patients of a more profitable class. I am utterly at a loss to conceive what is to become of the juniors should the commissioners ever adopt your mode of procuring for the poor “the best treatment:” the worthy gentlemen would hardly like to trust themselves in the hands of those whom they had declared unworthy to treat the poor, and their elite friends would certainly have the same feeling, so that the raw youths just stepping from the hospital in all the pride of conscious power, would have but this alternative, either to turn their hands to some other craft, or to advertise that they undertook to cure for love, not money. Doubtless they would be happy enough to catch a few outcast souls who had no parish, and a few also of those demihonest thrifty beings of a somewhat higher grade, whom we see so frequently stealing the benefits of our abused charities. Well then, Mr. Editor, tell us how many years do you think the youngers ought to do “all for love?” how long before they would be worthy

to presume upon the treatment of a decentish sort of a respectable patient? say a substantial green-grocer—"any thing you like to begin with"—how much longer before they might safely undertake the care of a lawyer's wife without incurring the hazard of an action for damages if the gentlewoman died? Of a surety you do not think of dooming the rising generation to a perpetual "love-feast:" you intend that in the course of years, even when the snow of time begins to fall upon their sapient heads, that then they shall be free to touch the fees, and find, after all their lengthened fast, it has not been "love's labour lost."

It is pleasing, however, to turn from the opinion of the reviewer, and find the strong answer to his false notions thus furnished by the commissioners themselves. "With respect to the general professional qualifications of the medical men who come within the words of the act, we have relied on the diplomas of those who are charged by the legislature with the duty of examining the qualifications of the candidate for practice, being assured that the recent improvement in medical practice and education are such as in general to render the later diplomas certificates of a degree of competency *equivalent to much practice* on the parts of those who have had an earlier education." I need not add one word more; the answer is complete, and I am sure the gentlemen of the jury will find a verdict for those "young and inexperienced officers," conscientiously concluding from what they have heard, that though in many instances "their poverty, and not their will has led them into the presumption of competing with older men, and offering their labour at a lower rate, still they are deserving of much consideration, seeing that every man has a right to fix the price of his own work, whether it be good, better, or best; and that science is not always to be measured by the length of a beard, nor wisdom by grey hairs.

There are some other disreputable points in the said Review, and as the subject is one of importance, at leisure I may return to it again.

I am, Mr. Editor, sincerely yours,

JOHN C. W. DYER.

Liverpool Road, Oct. 29th, 1835.

We beg to ask, would Mr. Dyer, if dangerously ill, select his client the youngster as his medical attendant? or does he suppose that youngsters who have received diplomas are competent to treat disease? The law presumes so; but the profession is of a different opinion.—REV.

The London Medical

AND

Surgical Journal.

Saturday, October 31st, 1835.

DEGRADATION OF THE PROFESSION— STATE OF OUR MEDICAL LITERATURE.

NOTHING can bear stronger testimony to the degraded condition of the medical profession in this country than the present state of medical literature. Foreigners remark with justice how few scientific works are published, and they naturally attribute this to the dearth of talent or the want of industry; they suppose that there are few men among us capable of producing such works. They are mistaken. We venture to assert that no country in Europe gives birth to more individuals adequate to the achievement of great works in medicine than our own. It is not ability that is wanting, but the stimulus to rouse it into action: the pure love of science is like disinterested patriotism—a vision of the imagination; and the light of genius will wax dim and the sinews of labour will be unstrung, unless something more substantial than "the bubble reputation" be held out as the reward of exertion. Scientific books are not published, because they will not sell; that is, because they are not read; for if the pure love of science cannot make doctors write, still less is it to be expected that it will make booksellers publish. And why do the greater part of the profession never read? Because the infamous corporations have so crushed them down by their hateful tyranny, that they can hardly be brought to regard themselves otherwise than as servile hacks and mere *routiniers*; literature and science can aid little in drenching people with abominable liquids, or making them pay bills for the same. It is thus, ye pompous noodles of Pall Mall, and ye uncharitable curs of Lincoln's Inn and

ye sordid pill-mongers of Blackfriars, it is thus that ye, whose duty it is to uphold the honour and to guard the interests of the profession, have reduced it to a state of abasement that banishes all self-respect, to a state of penury that banishes every consideration but the means of obtaining a beggarly subsistence! If doctors do not read, however, patients do; and what sort of medical books are most likely to suit those who are necessarily ignorant of medicine? Why, trashy treatises on diet and digestion, to make people who eat too much have a reverend care of their stomachs, and consult the authors of the said treatises as a matter of course; and an infinity of other humbugs, among which those calculated to excite "high moral feeling" are not to be forgotten—such as disinterments of headless kings, and the deaths of the great unchanged (*eminent persons*)!

It is but justice to add, that the world is chiefly indebted to the "heads of the profession" for such contributions to the literature of science.

If a man wishes to bring out a really scientific work on medicine in this country, he must do it at his own expense, for no bookseller will undertake it, and he must look for readers on the continent, for he will not find them at home. It is true that he may even here be gratified with the praise of critics, who declare every book not absolutely execrable to be the best ever published in any age or nation, and with the vituperation of hireling prints, which will abuse both his writings and his character if he chance to be personally obnoxious to the Dons of their slavish idolatry, or to awaken the malignity of conscious turpitude by the expression of a single manly and generous sentiment.

The above-mentioned causes render the appearance of scientific works on medicine so rare amongst us, that if any member of the profession produces such a work, he has much reason to apprehend that a hue and cry will be

raised against him for not being a *practical man*—the wise-acres having conceived the luminous notion that a man who reads largely and thinks profoundly cannot by any possibility *act* with ordinary judgment.

Such are the present encouragements for scientific medicine in the native land of Harvey, Cullen, and Hunter. But set the mind of the profession free; let the villainous oligarchies be swallowed up in one faculty, and we shall soon see if Great Britain be inferior to other countries in original genius—in scientific ardour—or in the power of exertion, without which both are ineffectual.

—o—

LATE APPOINTMENTS IN THE CITY— ELECTION OF A RESIDENT SURGEON TO CHRIST'S HOSPITAL.

THE medical appointments attached to some of the venerable institutions of the good city of London have lately been most strangely disposed of. A little while ago the professorship at Gresham College was given to Dr. Southey, a very gentlemanly man—none more so in the profession—but who has done about as much for medical science as we have for Sanscrit philology. Nobody who knew that Dr. Copland was a candidate could have entertained an idea that Dr. Southey had a chance against so distinguished a man.

We have now to announce that a youth named Stone has been appointed resident surgeon to Christ's Hospital. The only objection we have to this gentleman is, that we never heard of him before, and therefore have no ground of confidence in his qualifications for so important an office, to which, indeed, his experience can scarcely be considered adequate. This Mr. Stone is, we believe, the son of the apothecary at St. Thomas's Hospital—Ah!—St. Thomas's—now we only hope that King Harrison may have had nothing to do with the matter. We know well that there is a formula of *sovereign*

efficacy in use at Guy's, which begins thus:—"We, Harrison, by the Grace of God! King of Guy's and All-round-about, do ordain," &c. We trust that no such *ordonnance* has been the means of flinging this Stone so unexpectedly into Christ's Hospital, where the services of an able and experienced man are seriously called for. What is done, however, cannot be undone, and we wish that Mr. Stone may fill the situation creditably; we have no earthly exception to take against him but the simple impossibility of his being at present as competent as Mr. Plumbe, who was unsuccessful.

—o—

Foreign Medicine.

—

Academy of Medicine—Reproduction of Leeches.

M. GUIBOURT read a report on the work of M. Fleury, of Rennes, on the reproduction of leeches. The author recommends, in order to preserve the species, which threatens to become extinct in France—first, to interdict their being taken during the season of reproduction; secondly, to interdict the taking of those below a certain size or weight; thirdly, to subject the right of taking them to a certain remuneration; and fourthly, to place the taking of them under the management of keepers. M. Guibourt considered that these means are insufficient, and proposes that the leeches which have already been used, should be placed in tanks devoted to the purpose, in order to be taken again at a time more or less distant. The experiment has already been made by M. Desportes, director of hospitals; who caused the leeches which had been used in the hospitals to be put into a tank in the country. Six months afterwards they were furnished gratis to the people in the neighbourhood, who made use of them with much benefit, in spite of the repugnance they at first manifested for these animals, which they knew had been before applied to other patients. In the hospitals of Paris there were annually employed five hundred thousand leeches, valued at sixty thousand francs.

M. Amussat, in the name of M. Thomson,

presented an instrument for the treatment of artificial anus. It is a kind of metallic tube, which the patient may open and close at pleasure.—*Journ. Hebd.*

The Therapeutic Influence of Atmospheric Heat By Dr. Guyot.

The first question which Dr. Guyot proposes to resolve is, "When is the temperature most favourable to the cicatrization of wounds?"

Hippocrates remarked that warm weather is more favourable than winter to the greater number of wounds. Ambrose Paré, drawing a practical conclusion from this observation, recommended that wounds of the head, in winter, should be treated by vibrations of iron heated before the fire. Since that time, most surgeons have understood the favourable influence of an elevated and uniform temperature; but this fact still remained as a simple observation; and even the essays of Ambrose Paré were almost forgotten. Dr. Guyot has just brought them forward again in a new form; and by giving to his experiments the greatest degree of accuracy, he has arrived at results, which ought to engage all the attention of practitioners.

He has experimented on thirty rabbits; and many of these having been employed a second and third time, the number of experiments amounted to sixty-four. Let us first give an idea of the apparatus, and mode of experimenting.

The principal apparatus consists of a case of wood, with four compartments one above another; each of which will contain two rabbits easily. Each is closed behind by a slide, which may be drawn out laterally; and has in front a contrivance for holding food. A vertical pipe passes through the middle of them all, and opens into each by a mouth, through which the heat passes, and which may be more or less opened at pleasure. The inferior extremity of this pipe incloses the upper part of the lamp, which burns throughout the twenty-four hours, and which heats all the compartments at once, to the degree that may be wished for. An aperture in the side of each compartment, allows the introduction of a thermometer, which constantly indicates the temperature. A strong curtain, pierced with two holes, each capable of admitting

the head of a rabbit, is nailed before each compartment, leaving the food-trough outside, so that the rabbits may have their bodies plunged in the hot air, while their heads are free.

A second apparatus is constructed after the same manner; but the rabbits are here enclosed entirely. Four windows are adapted to it, to permit a view of what passes in the interior. The first apparatus, then, gives a heat diffused over all the body except the head; the second, a heat diffused universally; lastly, topical heat is applied in the following manner. On a large bench, seven rabbits are fixed, by means of ribbons, fastened to the feet; each rabbit being furthermore enveloped in a piece of linen fastened all round him; so as to leave no part uncovered except the head, and the wounds which had been made on the buttocks. Between every two rabbits, opened a pipe, passing through the bench, and having beneath an inverted funnel, to receive and concentrate the heat of one or more lamps placed below. Superiorly the pipe opened in such a situation, as to give an equal degree of heat to the wounds of both rabbits. Let us now see the results.

Two rabbits plunged wholly into a heated atmosphere, presented nothing unusual till the temperature reached 25 degs. (of the centigrade thermometer), when the respiration began to be accelerated. At 35 degs. there was faintness, with commencing perspiration; at 40 degs. prostration, with the escape of saliva from the mouth; at 50 degs. the respiration was so much hurried, that the movements could scarcely be counted; and at 60 degs. the animals ceased to give any signs of life, after an immersion of two hours. Removed into the surrounding temperature, they gradually recovered, and were well in twenty-four hours.

Two other rabbits, one of which had suffered amputation of the thigh, and the other with a penetrating wound of the chest, were plunged into an atmosphere at 40 degs. The first died at the end of an hour; the second after eight hours.

With respect to temperature diffused over the body alone, by means of the first apparatus, the results were very strange; and one can scarcely avoid thinking that some accidental circumstance had occurred to inter-

fere with the results. Thus the rabbits supported very well a temperature from 25 to 35 degs.; but from 35 to 45 degs., the depression was constantly extreme, the appetite gone, and the respiration quickened. Above 45 deg., on the contrary, to 50, 60, 70, and even 76 degs., they remained very well; without any other general perturbation than a slight acceleration of the breathing, which often did not remain long. The author confines himself to the statement of the fact, without even attempting an explanation.

The following is the result of the observations made on the wounds submitted to this diffused temperature. Of four simple incisions in the thigh, an inch and a half in length, constantly heated to 60 degs., two were united in from four to six hours; the two others, remaining open, furnished for twelve hours a serous exudation, which gradually dried up in the form of a shining varnish, red and transparent. In the twenty-four hours which followed, a white solid matter appeared under the varnish, while the borders of the wound were drawn towards each other. The third day the wounds were reduced to a line in breadth. On the fourth the crust which remained was renewed, and the cicatrization was complete. It appeared to have taken place without inflammation; and as for suppuration, it certainly did not occur. Of four other wounds of the same dimensions exposed to a temperature of 14 degs. only, (two exposed to the air and two dressed) the first were not cicatrized till the twelfth day, the others not till the fourteenth or fifteenth, all having suppurated.

Dr. Guyot afterwards experimented on wounds with loss of substance involving the aponeurosis, an inch and a half in length, and three quarters of an inch in breadth.—Two of these wounds, submitted to a temperature of 50 degs., poured out for twenty-four hours a viscid and scanty serous fluid. They afterwards became covered with the kind of red varnish already mentioned. At the third day were perceived points on which were deposited a white solid matter, which appeared to be the "plastic matter" of M. de Blainville. This layer extended gradually, and by the seventh day appeared to form a true membrane over all the surface of the wound. At the same time the wound

contracted. On the tenth day it was not more than two lines broad; and by the eleventh or twelfth the cicatrization was complete. Two wounds of the same kind, involving the muscular tissue to the depth of two lines, exposed to a temperature of 40 degs., were cured by the fourteenth day. Others, at the ordinary temperature, suppurated, and were not healed till the nineteenth, or even the twenty-second day. The influence of a high temperature was not less beneficial in the case of wounds which had previously been treated in the ordinary manner, and which had thus been already brought into a state of suppuration.

The amputations were less successful in their results. All the rabbits died, either with tetanus, or from perforation of the intestines. The same fate attended others, in which the chest was opened by an incision in the side; but one, submitted to a temperature of 36 degs., was completely cured in sixteen days; the wound being perfectly cicatrized without having suppurated.

The experiments with the third apparatus did not succeed. The rabbits deranged it, and burned themselves at the orifice of the tube. It became necessary to abandon it; but Dr. Guyot experimented in another manner on the local application of heat. He injected into the head of a rabbit water at the temperature of 8 degs.; and into the head of another a similar quantity of water at 32 degs. Both at first gave evidences of being stunned, and of great prostration of strength; but after the interval of an hour the rabbit in which the cold water had been used appeared completely recovered; while the other remained ill and suffering for forty-eight hours. The same difference was exemplified in comparative injections of water at 8 degs. and at 32 degs. into the abdomen of two rabbits. Ultimately all the four animals recovered.

Much controversy has arisen on the action of instruments at different temperatures. Dr. Guyot says that in the great majority of cases he observed less muscular trembling, and the absence of cries, when he operated on these rabbits with instruments heated to 25 or 30 degs. But still in a great number of cases he could not perceive any difference in the action of hot and cold instruments.

Hitherto the experiments had been made only on the lower animals. It was desirable

to try them upon the human subject. M. Magendie having been made acquainted with the results obtained, and having ascertained for himself that a wound of a rabbit, round and the size of a five-shilling piece, submitted to a temperature of 45 degs., did not present at the eighth day either inflammation or suppuration, and yet tended nevertheless to cicatrization, requested Dr. Guyot to try the effect of heat first upon ulcers. It was in the wards of M. Breschet that the first four patients were treated; two others in those of M. Roux, then surgeon at La Charité; and lastly one at Val-de-Grâce.

The apparatus consists of a rectangular box, ten inches square, and twelve inches long, closed at the two extremities by a cloth nailed all round, and presenting in the middle an opening, which can be enlarged and diminished at pleasure, by means of a cord passing through a hem in the cloth, and entirely surrounding the aperture. The affected limb is passed through these two holes in such a way that the wound is placed in the middle of the box, and a door, which opens above, permits us to examine it. Into the side of the box is fixed a tube, which passes horizontally across the lid till it reaches the side of the latter, then descends perpendicularly, again becomes horizontal, and lastly vertical, in order to adapt itself to a lamp. Above the last portion of the tube is a groove, by means of which may be opened or shut at pleasure an orifice destined to allow a part of the heat to escape. An aperture in the top of the box permits the introduction of a thermometer, the tube of which being external, allows the temperature to be noted. The limb rests upon cushions.

By the assistance of this machine, and a heat of 45 deg., two patients at the Hôtel Dieu, affected with ulcers of long standing, were cured with a very firm cicatrice. Two others received only an amelioration. It is worthy of remark, that in the case of one of these last patients, the heat having reached 70 or 80 degs., the ulcer suppurated abundantly, and gave forth a very disagreeable odour, until the temperament was lowered. Of the two ulcers treated at La Charité, one healed very well, but the other did not go on to complete cicatrization. At Val-de-Grâce the treatment was interrupted before the cure.

Dr. Guyot also tried his apparatus on a white swelling. He removed the lancinating pains; but having raised the temperature to 60 degs., the tumour was found next day to be increased in volume. In another patient, operated upon for popliteal aneurism, by ligature of the femoral artery, two hours of immersion, in a temperature of 35 degs., sufficed to calm the painful cramps which had prevented sleep. The author likewise obtained remarkable relief in a case of sciatica, by a temperature of from 35 to 50 degs. But all these cases are incomplete; since either the apparatus was not applied long enough to effect a perfect cure, or the patients are still under treatment.

The local application of heat, then, has not succeeded so well with the human subject as with rabbits. But the circumstances were very different in the two cases; and it is easy to conceive that a remedy very proper for curing a recent wound, or a simple ulcer, may fail when applied to a complicated ulcer. In other respects the results are sufficiently encouraging; and during the cold season especially, in the extensive wounds produced by certain operations, the application, prudently directed, may acquire an importance of which experience alone can reveal the extent. It is for hospital surgeons to ascertain for us its value.—*Gazette Medicale*.

Observations on a Case simulating Rheumatism, with Fatty Degeneration of the Muscles and general Softening of the Bones. By M. Dechambre.

A woman, 61 years of age, of a dry and meagre habit, had been subject for a twelvemonth, without any appreciable cause, to intense pains, first in the left inferior extremity, and then in the false ribs of both sides. For six months they have been felt in the right inferior extremity and the two shoulders. There was neither redness nor swelling. While she was at rest the pains were generally not felt, but a touch, and the least movement, gave rise to them in an excessive degree. She went into the hospital (La Salpêtrière) under the care of M. Hourmann, and remained for seven months without any great improvement. At the end of that time she died.

On examination, there was found a re-

markable firmness of the cerebral substance, but no other appearance worthy of note, either in the head, the spine, or the nervous trunks. The muscles were universally of an extreme paleness, bordering a little on yellow. A great portion of the muscular tissue has disappeared, and was replaced by adipose tissue, which could be followed among the smallest fibres. The whole mass of flesh was inconsiderable: the woman appeared to have been reduced, during life, to great emaciation. The vertebræ, the humerus, the clavicles, the femurs, and the iliac bones, could be cut with the greatest facility. A smart impulse given to the left thigh fractured the neck of the femur. The interior of the bones presented universally a highly rarefied cellular structure, of a greyish white colour, and containing a great quantity of gelatinous fluid. In some places, as in the neck of the femur, and in the left iliac bone, the osseous tissue was reduced to a reddish-coloured detritus, which occupied the centre. The last of these bones alone appeared sensibly augmented in thickness, and the buttock of that side was more prominent. Nothing particular was observed in the articulations, except an erosion of the osseous tissue, of slight extent, on the internal surface of each olecranon process, and on the head of the left femur.

The author appends to this case some observations. To what cause ought we to attribute this remarkable degeneration of the muscular and osseous tissues? He ascribes the first to the long state of inaction in which the patient had lived; but as for the second, it has been observed in cases so dissimilar, that he refers it to a general disposition, whatever that may be, to deterioration of the organism. "Analysis has proved," he observes, "an unusual abundance of gelatinous matter in the bones, which have undergone this softening process; and as it is gelatine which, in the fetus and young children, supplies the place of the oily fluid which fills the osseous cells in adults, so it is observable that in the preceding case, in proportion as one organic element disappeared, it was replaced by another not so high in the scale; the muscular tissue by the adipose and the oily fluid of the bones by gelatine." It appears to us that the terms which the author has

employed do not express his meaning. Analysis has discovered in softened bones, a greater quantity of *animal matter*, but not of *gelatine*. On the contrary, this animal matter is almost wholly composed of oily fluid—which we are far from regarding as an element less elevated in the scale than the gelatinous web in the bones of young subjects. We may also observe, that if there be more medullary matter in adults than in young subjects, that does not prove the gelatinous web to have disappeared. The chief difference between the bones of the child and that of the adult, is, that in the latter, the earthy salts are more abundant, with scarcely a trace of oily fluid.—*Gazette Medicale*.

Académie des Sciences—*New Classification of the Animal Kingdom*. By M. Ehrenberg.

M. de Humboldt, in the name of the author, M. Ehrenberg, Member of the Academy of Sciences of Berlin, and Correspondent of the Institution, presented a table of a new classification of the animal kingdom into 28 classes, founded on the organization and similarity of type which pervades the apparatus of sensation, circulation, locomotion, nutrition, and propagation. The table is German.

In the system of M. Ehrenberg, said M. de Humboldt, 22 of the 28 groups belong to animals without vertebræ, and the author distinguishes these into those which have a heart, and those which are without it—into *cordata* and *vasculosa*. In the latter the vessels exhibit no pulsation. The rapid motion of the liquids they contain is often favoured by the oscillation of the internal walls of the vessels. The digestive apparatus is either simple and single, as in the *tubulata*, or divided and multiform, as in the *racemifera*; of which the last class, with hermaphroditism almost always evident, comprehends the *polygastrica* or *infusoria*.

M. Ehrenberg, in the course of two expeditions (the one in Syria and Nubia, to Dongola and the Red Sea, the other in the north of Asia and to the Caspian Sea), has had opportunities of observing the organization of a great number of animals. He has continued without remission, in Europe, his microscopical observations; but he presents his general table only as an essay capable of improvement and gradual development.—*Journal Hebdomadaire*.

Hospital Reports.

WESTMINSTER HOSPITAL.

Malignant Disease of the Antrum—Excision of the Superior Maxillary, Malar, Palatine, Lachrymal, and Part of the Ethmoid and Sphenoid Bones.

MARY BROWN, aged 46, a widow twelve years, and having had six children, residing at Codicote, Hertfordshire, was admitted, July 7th, into Queen Anne's Ward, under the care of Mr. Guthrie. She has for some time been subject to a severe face-ache, on the side affected with disease, but it was not until about nine months since, that she first noticed a little swelling of the right gum on the outer side of the alveolar process, after which the pain became more severe and stationary. She attributes this to catching cold about the time in question. The swelling gradually extended and became visible; the lower part of the cheek, from which it ascended towards the orbit, filling up the fossa canina, and at present it involves the whole right cheek, disfiguring it in a very extensive degree. The tumour is found by examination to be of a dense and hard consistence, apparently of considerable thickness, and overlaying the surface of the upper maxilla. It encroaches on the nose anteriorly, and on the ear behind; inferiorly it extends below the angle of the mouth, and above, the eye is evidently raised by the elevation of the floor of the orbit, as well as by the presence of the external tumour, which is most prominent near the outer canthus of the eye. At this point the integument of the face is thin and livid, but over the rest of the tumour it has a pretty healthy character. Soon after the appearance of the tumour in the gum, she was advised by a surgeon whom she consulted in the country, to have one of her teeth extracted, but as the tooth was sound, she deferred submitting to the operation until January last, when the last molar was removed, but without alleviating the pain, or otherwise checking the progress of the disease. Two months since, the canine tooth was likewise removed, and the gum freely lanced, by which means the pain was a good deal relieved, and the progress of the disease was rendered less rapid. Upon looking into the mouth, the tumour is seen to involve the gum, and to have numerous veins ramifying over its surface. At the situation of the last molar tooth which was extracted, an opening is seen with ulcerated margins, and extending into the palate. From this opening occasionally some black and congealed blood distils into the mouth, as well as a little unpleasant matter. Upon passing a probe through this opening into the cavity of the bone, it meets with numerous obstacles in the shape of dense but elastic substances, which appear to grow from the entire extent of the inner surface of the antrum. A little bleeding was

occasioned by making this examination: she says that at all times there is more or less of a "pricking pain" present in the tumour; but she likewise describes a severe lancinating pain, which only makes its invasion in paroxysms. Her countenance is of a yellow sallow colour, and she says it has become so since she has suffered from this disease. The appetite has generally been bad, but is better at present; bowels are costive; tongue reddish, and slightly furred; pulse 96.

18th. Since admission the tumour has increased somewhat in size, especially towards the eye, upon which it is encroaching with rapid strides. The paroxysms of pain have latterly been a good deal aggravated. She has suffered a good deal from sickness.

R. Morphæ acetat., gr. ss.

Ft. Pil. horæ somni, p. r. n. sumend.

R. Mist salin effervesc. ter die.

Appr. cataplas. panis feciei.

Mr. Guthrie having come to the conclusion that the only chance of removing the disease consists in excising entirely the bones of the face, has proposed it to the patient, who has given her consent to its being performed. A few doses of the Mist. salin. cathart. have been prescribed for her during the ensuing week.

21st. During the last two days, there has been a good deal of vomiting or constipation. Various aperients were rejected by the stomach, until a solution of sulphate of magnesia in a state of effervescence was tried, which was at last retained. This morning the bowels have been relieved two or three times, but the vomiting still continues. The tongue is furred; anorexia; thirst.

R. Liq. opii, sedativ. gtt. x;

Mist. camph., ʒ iss.

Fiat. haust. statim sumendus.

25th. The sickness has continued, although not quite so severely, nearly up to the present time, but it is now a good deal relieved. The tongue however is red, and there is a good deal of constitutional irritation.

Contr. haust. effervesc.

28th. The tumour has increased so much, especially at its upper and outer angle, that the eyelids are generally kept perfectly closed. As a little fluctuation was distinguishable at the prominent part of the tumour, Mr. Guthrie introduced the point of a lancet, and gave exit to a few drachms of pus. There is now a greater discharge of offensive ichor into the mouth, than when she came in.

30th. The face is a good deal easier than before the opening into the little abscess was made. Pulse 84, feeble; countenance has a depressed, anxious character.

August 1st. She is still confined to bed, being very weak, and subject to occasional severe attacks of sickness. The tumour remains as before, the eye being kept entirely closed by it.

8th. A very small and superficial collec-

tion of pus has formed on the surface of the tumour near the inner angle of the eye, which very much resembles a phlyzaceous pustule. The place where the incision was made in opening the small abscess, has become fistulous, and discharges a thin, glairy, brown ichor over the face.

Contr. cataplas. panis.

13th. Has less pain in the tumour, and she states herself to feel better.

15th. The face has not been exposed entirely, for the purpose of examination, for some time, and the threatening aspect of the disease was surprising to day in the extreme. A large conical tumour covered by a livid and purple integument with a fistulous opening in its centre, discharging an offensive sanies, pushing upwards the eye by the elevation of the roof of the antrum, as well as by the growth of the external tumour in front of the orbital margin; causing, by its development towards the median line of the body, a deflection of the nose to the left side; extending almost to the angle of the lower jaw below, and externally, apparently becoming lost in the substance of the parotid glands; such a state of parts as this, would, we think, be sufficient to induce even the most tenacious surgeon to inquire, whether any operation, even the most desperate that could be suggested, would not be justifiable, if it held out the least chance of success.

20th. The general health is better; has no vomiting; bowels are opened once at least daily, without the aid of any medicine; pulse 96, feeble. She has not had so much pain of late; the discharge from the fistulous opening in the face has become more abundant, and is of almost a black colour.

September 29th. During the last month the disease has not made very rapid progress as regards extent; the opening in its surface only discharges a few drops of a serous fluid, but a very considerable quantity of fœtid glairy fluid finds its way into the mouth, which however is doubtless much augmented by an increased and sympathetic secretion of saliva, as she regularly spits a pint or two daily. She has likewise had frequent attacks of diarrhœa and vomiting during the last month, which have at times been very severe.

October 5th. Upon examining the mouth to day, the opening in the gum communicating with the maxillary sinus, was found considerably enlarged, and upon passing a probe into the antrum, that cavity can be readily distinguished to be much larger than when the patient was admitted. The general health appears a good deal better, although she seldom passes a week without a return of the gastro-enteric irritation, as indicated by diarrhœa and vomiting.

24th. Mr. Guthrie having concluded to perform the operation by excising the diseased bones, and having obtained the patient's consent, her general health having likewise become in a good degree established, a

great number of pupils and visitors assembled in the operating theatre. Amongst the visitors we noticed Mr. Keate and Mr. Stanley. Mr. Hale Thompson assisted Mr. Guthrie in the various steps of the operation. The patient was placed in a chair, having the head supported on pillows, and kept steady by an assistant. A vertical incision was made through the integuments, extending from just below the tendon of the orbicularis palpebrarum muscle, to about half an inch within the angle of the mouth, and dividing completely the upper lip. By this incision the coronary branch of the facial artery was divided, and a little hæmorrhage was produced, which however soon ceased. Another incision was carried somewhat obliquely outwards and upwards, so as to avoid the parotid duct, towards the lobe of the ear, and a square flap of skin was then obtained by making a third incision from the outer extremity of this to the temple. This flap was then speedily but carefully dissected as far as the lower eyelid, from the surface of the tumour, which was thus exposed, having the remains of the zygomatic and other muscles of the face stretched over it. As the tumour had a somewhat loose connexion with the posterior part of the maxillary bone, and from its protuberance was likely a good deal to impede the further steps of the operation, Mr. Guthrie removed it at once, by making a few incisions around it with the scalpel. A large mass of dense scirrhous structure, of almost a cartilaginous hardness, was thus removed, which proved to be the anterior paries of the antrum, which had become the seat of this form of heterogeneous formation, attended with the absorption of all traces of the bony tissue. By this means, the maxillary sinus was of course laid open, and its posterior wall exposed, which was found involved in a similar state of disease. Mr. Guthrie now divided the zygomatic process of the jugal bone, by a stroke or two of the mallet and chisel, and by the same means separated its ascending orbital process from the external angular process of the frontal, which did not require any great degree of force, from the softness of the osseous tissue. In this way, the bone was perfectly freed on the outer side from any attachment to surrounding parts. Directing his efforts in a similar manner to the inner side, the maxillary and palatine bones were separated from their fellows in the line of their palatine suture, by insinuating the chisel between the two front incisor teeth. An opening being made into the right nostril by piercing the cartilage of the ala nasi, the nasal bone was separated by the chisel from the nasal process of the superior maxilla; and the lachrymal bone, and the orbital plate of the ethmoid, were then cut through with the blunt pointed knife. The superior maxillary nerve, where it lays in the sphenopalatine fossa, having been first

carefully incised with the scalpel, Mr. Guthrie, by insinuating his fingers behind the diseased mass, was enabled to raise it from its situation, but it still adhered by its posterior border to the pterygoid processes. The employment of the scalpel was here again necessary to divide the connexions, which was only effected with considerable difficulty, from the impediment caused by the motions of the tongue. When it was brought away, part of the posterior angle of the diseased sinus, where it often communicates with the ethmoid cells, was found to be left behind, and required separate and rather tedious dissection, as did also part of the glandular structure of the soft palate of the amygdala, which had participated in the disease, as well as a portion of the pterygoid plate. Here, of course, the greatest care was employed by the operator, from the proximity of the carotid, which he afterwards stated he was in great fear of wounding. Upon the division of the branches of the internal maxillary artery, and the removal of the diseased mass, some hæmorrhage occurred, which occasioned a good deal of distress to the patient, from the blood accumulating in the fauces. It was however expelled by the expiratory efforts, which were increased in violence as the blood accumulated. The mouths of the divided arteries very soon contracted, very little blood being lost during the operation, and not a single ligature being required. Mr. Guthrie now requested Mr. White to examine the surface from which the diseased mass had been removed, in order to ascertain whether any vestige of it remained behind. A little was detected at the upper and posterior angle of the cavity, most probably in the walls of the sphenoidal sinus, which being seized with a hook, was with a little tedious dissection removed. The bone was afterwards scraped.

The removal of the disease now being accomplished, and forty-five minutes having elapsed, the patient was allowed to rest a little, and some wine was administered. Her wet and bloody linen was removed, and she was placed on a bed which had been brought into the theatre for the purpose. The edges of the divided integuments were now brought together, and retained so, in the situation of the outer incision, by means of two or three stitches of interrupted suture, metallic wire being employed in place of silk; whilst the incision in those parts of the cheek and lip which were unsupported, were closed by means of the twisted suture, about five hare-lip pins being altogether employed. A little simple dressing was laid over the cheek, and a bandage lightly applied. The patient bore the operation almost without a murmur, and although the pulse after the operation was very small and feeble, yet it had fallen very little from 120, which it was before she was taken into the theatre. A little brandy and water was

administered upon the patient being removed to the ward, where the strictest quietude was enjoined.

7 P. M. Has had a quiet sleep during the afternoon, and expresses by signs that she is free from pain; there being great difficulty in articulating, as well as in deglutition: the pulse 126, is rather fuller and stronger than before.

25th. Has passed a very comfortable night, and has no pain either in the face or elsewhere: she takes boiled milk for nourishment, which however she can only swallow in small quantities. In the afternoon the bowels not having been opened, a domestic enema was administered, which in a few hours produced a free evacuation from the bowels. Pulse the same as yesterday. In every respect she appears to be going on as favourably as could possibly be desired.

26th. Passed a good night. A little tumefaction has arisen about the lower eyelid, which has a rather dark colour. Union by the first intention is taking place very quickly in the wounds of the cheek. Upon examining minutely the diseased growth, it was found to consist of grey semi-transparent tissue, apparently not highly vascular, and having its general characters more of the appearance of medullary sarcoma than of scirrhus. No remains of osseous tissue could be detected in its substance; one or two of the teeth remained impacted in the mass, the osseous alveolus being totally absorbed. The schneiderian membrane of the outer side of the nose, which was in close apposition with the diseased mass, preserved its normal character.

—o—

NORTH LONDON HOSPITAL.

Lithotomy.

Mr. LISTON last week performed the operation for stone on a little boy, aged six years and a half, who had suffered from infancy with most of the distressing symptoms of calculus. The patient having been sounded, and the presence of a stone detected, he was placed between the knee of an assistant, a small curved staff, with a groove a little to one side, was introduced—the incisions were made with a common dissecting scalpel—and the stone removed in 40 seconds from the first incision.

21st. Quite comfortable.

The patient, aged 80, whose case we reported last week, appeared to be going on very well until the 15th, when, on the unexpected copious operation of some medicine he had taken, he rapidly sunk.

Cataract.

Margaret Lake, aged 65, was admitted, Oct. 15, under the care of Mr. Liston, with cataract of both eyes. The right eye was operated on. The pupil being previously dilated by dropping in a little solution of

extract of belladonna. The left eye being covered with a bandage, the operator steadied the right one with his left hand, then with his right hand introduced the cataract needle about a line from the junction of the sclerotic coat with the cornea, and pierced the cataract: he then disentangled it and withdrew it cautiously. The eyelids were then closed, and a pledget dipped in cold water and a bandage applied.

—o—

MEDICAL BOTANY.

PLATE VI.—COLCHICUM AUTUMNALE.

(THE systematic name of the common meadow saffron).

C. autumnale, as a medicine, has been known since the days of Hippocrates. It possesses diuretic, purgative, and narcotic properties: and on the Continent, where it was recommended to notice by Baron Stoeck, it is a favourite remedy in dropsy, particularly hydrothorax, and in humoral asthma. But it does not differ in its mode of action from squill, and is more uncertain in its operation; it has not been much used in that complaint in this country. In gout and rheumatism, however, its efficacy has been fully ascertained; and in allaying the pain it may be almost said to possess a specific property. It operates on the bowels chiefly, and the nerves, and diminishes the action of the arterial system.

It is to the enterprising spirit of Stoeck, that we are indebted chiefly for the virtues of colchicum, whose experiments were made principally on his own person. The fresh root, which is the part he preferred, is highly acrid and stimulating; a single grain wrapped in a crumb of bread and taken into the stomach, excites a burning heat and pain both in the stomach and bowels, strangury, tenesmus, thirst, and total loss of appetite. The acrimony is best corrected by vinegar. The tincture and wine are now found to be a controllable formulæ, and the best. Baron Stoeck began with a drachm of the latter twice a day, and gradually increased its dose. In France it is a favourite remedy in the case of gout; for it is supposed to be the active ingredient of a celebrated quack medicine prepared by M. Husson, and by him called *Eau Medicinale*. In this country it has been very extensively used, both that as prepared in France, and a tincture and wine, as ordered by the College of Physicians, in the cure of rheumatism as well as gout.

The sensible qualities of the fresh root vary, according to the place of growth and season of the year. In autumn it is almost inert, but in the beginning of summer highly acrid: hence some have found it to be an active poison, whilst others have eaten it in considerable quantity without experiencing any effect. When it is possessed of acrimony, this is of the same nature with that of garlic and some other plants, and is entirely destroyed by drying.

London Medical and Surgical Journal.

No. 197.

SATURDAY, NOVEMBER 7, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXI.

*Cerebral Fevers—Petechial, Miliary, and
Nervous Fevers—Strictures on the Numerical
Method, as applied to the Pathology of
Typhoid Fevers.*

THE existence of a cerebral fever has been advanced: Pinel describes one, which he calls apoplectic; it is a complex entity that needs to be decomposed, a cerebral phlegmasia with or without apoplexy, complicated or not with gastro-enteritis, and which may kill at any age, though more especially at the two extremes of life, for in them encephalic inflammations and congestions are more frequent and more violent. Of course this cerebral fever was unravelled on the inspection of dead bodies: under the names of encephalitis, meningitis, or arachnitis; what belonged to the brain was attributed, and what to the digestive canal was thereto assigned. But as men unfortunately are not exempt from passions, a coterie sprung up, overflowing with fury against the physiological doctrine, that has caused this unravelling of the fever in question: they appealed to observations that were due to the sagacity of Professor Lallemand, and according to which it would appear certain that there are sometimes cerebral fevers whose existence is never suspected: at the same time they took advantage of their mistakes as to the appearance of some signs of phlegmasia after death, and led on by their horror of the word gastro-enteritis, they conceived the idea of substituting that of cerebral fever. For some years nothing else was talked about: when you were called to a patient, they would say to you, "come and see a cerebral fever:" the students got into the habit of saying that they or their friends were attacked with cerebral fever—nothing but cerebral fevers were in fashion. Now, at the bottom, what was all

this? Simply patients attacked with gastro-enteritis, accompanied with cerebral symptoms, that is to say, with gastro-enteritis that had not been arrested, and had become sufficiently intense to act upon the brain and induce nervous phenomena therein. This kind of language went on until M. Bretonneau's work on dothinentery appeared. It then became allowable to speak of the digestive canal, provided the name given to its inflammation by the physiological physicians was abjured, and that of dothinentery placed in its stead. Subsequently, it being perceived that there was great affinity between dothinentery and typhus, these two expressions were taken as equivalents, and they arranged the matter so as to aim at destroying the whole physiological doctrine of the gastro-enteritis, which they made to converge towards this common rendezvous. In this manner they got out of the predicament, and were enabled to refer to the digestive canal: they allowed it to be the chief focus of the febrile phenomena, without, however, confessing that it was inflamed—a happy subterfuge which gave them breathing time. Mine be it to combat with these assertions, and to shew you their falsehood: I will only attack doctrines, for I suppose the authors who treated of this question acted with the *bond fide* intention of advancing science: but as, on my side, the common interest of humanity commands me to prove that they, on the contrary, keep it back, I shall speak what I think of their dothinentery.

Those who make use of this term have in view to withdraw all the symptoms of gastro-enteritis from the phlegmasia of the villo-mucous membrane of the digestive canal, in order to attribute them, not to the inflammation, but to the isolated affection of the mucous follicles of that canal: this has been the great master-stroke of the inventive minds of these our days. They have insulted the rising medical generation by supposing it to be blind or insincere enough not to recognise the inflammation as indiscriminately resident in the entire mucous substance of the digestive canal, in its nervous papillæ and sanguineous capillaries as well as in its follicles. They have attempted to represent these follicles, which

are only minute folds of the mucous membrane, in which are small cysts that secrete mucosities, as ampullæ intended for absorption, an assertion of which they bring no proof, and which, on the contrary, is anything but fact. They maintain that in their dothinentery these follicles alone are affected, and that they are sufficiently influential over the system to excite violent fevers, to affect the brain, to soften the heart, to produce ataxic and adynamic phenomena: they maintain that no gastritis has existed, no encephalitis accompanying gastro-enteritis, no pulmonary congestion, no peripneumony with hepatization, that should not be placed to the account of these follicles, which are thus made the great culprits of the system. Now, to get at the importance they have assigned to them, they have collected in the hospitals a certain number of typhoid gastro-enterites, ending, for the most part, in death, and they shewed patches of follicles in a state of swelling, turgescence, suppuration, purulent exudation, softening or induration, according to the more or less advanced degree of the disease. But, as they were far from constantly exhibiting a scarlet redness, and as these speculators knew not how to appreciate inflammation in its different periods, as it was essential at any price to do away with the idea of inflammation, and as the word of command was to concede nothing on this score, they considered them authorized, by the cases in which this redness was not present, to reject inflammation in toto, careless of the impregnable objections that might be made against such a decision.

One more difficulty remained—how to make out this isolated affection of the follicles as something important enough to disturb the system, and so frequently cause death. This was not very easy to do; yet they thought to attain it by having recourse to calculations and abstractions. They say, in typhus there are so many disorders of this kind, and so many of that other; there be some that are invariable, and some that are not: those of the follicles were considered invariable, and they therefore made the disease and its results dependent on them. They also managed to conclude that typhus only exists when these follicles are diseased, a conclusion that rests on strained ratiocination, on false numerical combinations and distorted facts: I do not believe that it is because they observed them badly, but it was my place to put them in their real light before you.

If I have made no mention of the supposed petechial and miliary fevers that still occupy the Italians, it is because Pinel has already disposed of them—they are now forgotten. The efforts made to bring them again into credit have been fruitless: in vain has it been attempted to make typhus of them—they have been acknowledged to consist of a subcutaneous eruption of small trans-

parent bubos consequent on excessive transpiration, favoured by a warm climate, and which may appear in a number of diseases, having, as an essential characteristic, an accompanying mode of visceral inflammation.

I might also have mentioned the nervous fevers of the Germans, which is nothing but an ataxic or adynamic gastro-enteritis, which they, and Marcus in particular, have thought proper to regard only with reference to the cerebral or spinal irritation; but I prefer to dwell upon an affection that some people would bring into power among us, under the name of dothinentery or typhoid fever. It is, however, a mere hybrid, and in the system of those who maintain its existence, it is impossible to say whether they would make an inflammation of some other condition of it: they fancy there is an air of importance and superiority in thus applying doubts to the most evident questions.

The Numerical Method, as applied to Dothinentery or Typhus.—In order to establish this dothinentery a numerical method has been had recourse to, which I shall proceed to examine, without reference to individuals. This method is borrowed from authors of statistics, and the attempt made to apply it to medical questions. So great is the imitative tendency in man, that no sooner does a new idea arise than people hasten to make essay of it, and multiply its applications. Persons that do not think deeply, at first imagine they have found the philosopher's stone: better sense, however, in time again takes precedence, and the method is appreciated. The method that we are now speaking of is in itself good, but the proper use of it should be known; for, ill applied, it becomes of no value, or even hurtful: it may easily deceive inattentive persons; it requires particular organic dispositions for calculation that do not exist in all men, as phrenological observations prove; those who have not such dispositions, and to whom calculations are irksome, hasten to the result. So much for medical questions. In statistical questions greater rigour has been used, and more positive results arrived at; the method has been found excellent for determining the averages of births and deaths, for shewing whether one disease is more or less fatal than another, &c.: these are simple questions, to which calculation is readily applicable. But I suppose that instead of one element the question has ten; the application of the method should be ten times made—if twenty, twenty times—otherwise the result will be illusory. And remark first of all that this result, as obtained by the arithmetical physicians, does not include the causes of diseases, numerous as they are, containing as they do pathological elements as important as the symptoms and anatomical lesions, and each of them requiring a particular calculation.

Yet this method has always been employed, and by it I too have proceeded—

only, there are two ways of using it, without figures, or with figures. In the former, a certain number of facts, stored in the memory, are compared, and the consequences deduced without laying stress on the calculations; this is the manner in which all founders of systems have proceeded. Look at Sydenham and the classical writers of the last century; they give you the result of the comparison of a great number of facts without using figures, and tell you that such a cause produces more diseases than such other, that such a symptom is most frequently observed, such treatment most frequently the best, &c. This mode of proceeding has been adopted by all the men who have given an impulse to science. Then came the calculators. The figure ought to have confirmed what genius had discovered; for, I opine, it is generally genius, and not the figure, that makes the discovery. Men endowed with the power of perceiving relations are led on by the abundance of facts, and arrive at deductions previous to having employed the slow method of calculation; yet they may be deceived, and it is necessary that these men who advance the sciences, and appear from time to time in the course of ages, should be subjected to the criticism of calculators. If they fall before it, they are spurious geniuses. But to be judges of them, certain rules should be followed—the judges themselves should possess some genius, above all, integrity, and should apply their calculation to all the elements of the question.

Pass we to the application that has been made of this method to gastro-enteritis, and let us see what it has produced. It has led to the proposition, that the symptoms of typhus or dothinentery are the consequences of the affection of the intestinal follicles. Mark, of their *affection*; they first said of their *inflammation*, but became afraid of having advanced too far, and therefore afterwards confined themselves to the former term. This affection has been regarded as a specific eruptive disease, of doubtful nature, having a necessary and fatal duration, like small-pox pustules, and a progress that cannot be changed. Now, how has the numerical method arrived at this result?

It has arrived at it by multiplying observations ten, twenty, thirty, eighty times, if necessary, on a class of subjects attacked with dothinentery: but experience proves that another class with other phlegmasiæ may also have the follicles affected.

It has arrived at it by calculating from a species of treatment that is always the same; but I can positively assert that another kind of treatment would have given another result, and that the progress which they have presented as of necessity would have been changed by this treatment; you see what applications of calculation should have been by right made to answer this single objection.

It has arrived at it by giving no account of the regimen followed by the patients: but another regimen, like another treatment, would not have produced a similar number of autopsies, nor similar alterations.

It has arrived at it by keeping out of view the mode of action of external causes, or by making them vague:—whereas I maintain that a good interpretation of those causes would have thrown light on the question, and shewed the part that irritation plays in this disease; but this part has not been given, and they have even abstained from using the word irritation.

It has arrived at it by making no account of anterior irritations—a question of the very first importance to men exposed to the influences that induce the disease, among whom were some already in a latent state of phlegmasiæ. In fact a number of individuals are always to be found in society whose habits, mode of life, regimen, griefs, misery, or excesses, have rendered feeble and valetudinarian, and who go on living with points of latent phlegmasia. These individuals may be said to be victims already devoted; whenever epidemics arrive, they are the first to be carried off; and when you hear speech of deaths occurring in the space of twelve to twenty-four hours, you may be certain it is they that have been seized. The numerical doctrine neglects this important datum, which would materially modify its results, as would the ages, sexes, external causes, regimen, and treatment.

It has arrived at this result by getting rid of all the lesions of typhus other than the affection of the follicles, in order to find that alone invariably. This is false *par excellence*; for, in the first place, the cerebral phenomena are at least as constant: by them the patient dies, and I cannot see why the preference was not given to them; in the next place, these phenomena exist in gastro-enteritis, where we find no altered follicles after death, as well as in those where such are found. It is, therefore, false that this alteration of the follicles is the generative organic phenomenon of adynamy and ataxy.

It has arrived at this result by affirming that the intestinal follicles are not diseased in many acute and chronic affections other than dothinentery, in which however they are affected as well as in what is called dothinentery. In fact, very many individuals who have not exhibited the collection of symptoms to which this new name has been assigned, who have had eruptive phlegmasiæ or peripneumonies, with anterior or simultaneous irritation of these follicles, have presented them in a state of alteration similar to that of dothinentery. Here, then, is another false observation.

It has arrived at this result by making use of cases where redness had dissappeared either in the stomach or the intestines, in

order to bring the inflammatory nature of the disease into doubt. Herein it has given proof of great ignorance: it has shewn its ignorance of the displacements of inflammation, and of the fact that the stomach, after being disorganized, may be made pale by the fluids that pass through it. It has said that inflammation is a secondary and accidental thing, inasmuch as redness is not always met with; that softening was inflammatory when this redness accompanied it, and non-inflammatory when it did not, &c. Pitiful reasons! these are only circumstances of the stage, and the predominance of the inflammation; if this predominance takes place in the lungs or the intestines towards the close of the disease, the small degree of redness that existed in the stomach disappears; for the patient must drink, and the fluid he drinks carries off the sanguineous molecules of the stomach—they never thought of this simple explanation; if, on the contrary, this predominance has been maintained in the stomach, if the patient has been stimulated, if the inflammation has lasted longer, the stomach exhibits more redness or density around the softening. All these circumstances should have been carefully calculated by the partizans of the numerical method—since they love calculation, here is food for them. One might say to them, “apply your method to the different durations of the diseases, to the cases in which the patients have been thirsty, to those where they have drank water, to those where they drank something else, &c. &c.; here is matter enough for volumes; we place you on your own ground, but you must calculate everything.” It is proved that softening of the stomach depends on inflammation, and the numeric doctrine only denies this fact, because it knows not the reasons why that organ loses or preserves its redness. So, also, of that of the intestines.

The numerical doctrine arrives at the conclusion that the follicles are not diseased by inflammation, by not stating the truth as to the actual state of the organs; for, it must be told, it has frequently dared to affirm the absence of inflammation in the mucous membrane, when it was evident there. Moreover, it has not comprehended that to die after a long continued inflammation that has exhausted the powers and decolorized the blood, is to die by inflammation. By a kind of vicious circle, and striking want of good faith, it would that we should find in the individual who has languished and slowly consumed, the same redness as in him who has sunk at the onset of an inflammation.

The numerical doctrine has considered as accessory and inconstant lesions, those of every other viscera than the digestive canal, and has been content to say, that they sometimes exist, and sometimes they do not, without giving any reason for their

existence or non-existence: yet this is a point, the solution of which was fundamental in the construction of the entity, for the first question that you put to yourself is the wherefore of these alterations and their inconstancy. Instead of answering this question, it has examined the state of the organs in different acute diseases, and has entered into a cool calculation, by which conclusions have been arrived at, all of which are most attackable. Thus, as they, the calculators, almost always found a phlegmasia of the stomach in peripneumony, they conclude that gastritis is not an exclusive phenomenon of typhus—as if any physiological physician had ever maintained the contrary. All that we have said is, that inflammation of one organ may induce that of another, and that this phenomenon is complicated in all manners, and is unceasingly tending to propagation. No doubt, in the majority of peripneumonies, there is congestion of the stomach, but as soon as I have combatted the pulmonary inflammation, the gastric congestion disappears; and if, in order to resolve the former, I think it advisable to cause revulsion to the stomach—by tartar emetic for instance—I do so. Prove to me that arsenic is the better remedy in such a case, and I will give it, for I am of no party nor coterie, and I admit all means that are sanctioned by experience. This congestion of the stomach may proceed to an inflammation which will not yield to the treatment best adapted to peripneumony, but requires a specific one to itself. Similar inflammations I am in the daily habit of combatting. But wherefore conclude from this fact, that gastritis is not a symptom of typhus? What is the meaning of this two-horned reasoning? Gastritis may complicate all possible inflammations, and become so predominant as to cause death.

There may also be an enteritis, with predominating pulmonary phlegmasia; the consequence is the same—one must be treated by treating the other, or each of them separately; and we are not to conclude that enteritis does not constitute typhus, because we meet it in company with peripneumony.

There may also be peripneumony with predominating gastritis: here, the answer is the same. The manner in which we study irritation, shields us from the absurd conclusions that are drawn from these coincidences and dependencies which inflammations have with regard to each other. You will one day laugh at the serious air with which some people treat the ridiculous questions that originate in these circumstances; you will not comprehend how it was possible for them not to attain the truths which I laid down at the commencement of this course, on the subject of inflammation in general. You did not, perhaps, then know what I was driving at—you see it now. You must study that phenomenon, and not an

entity wherein there is only one particular thing, and wherein whatever is not that particular thing, is accessory and independent.

Another consequence of these calculations and comparisons, has been the assertion that the follicular patches of the intestines are to be regarded as the leading phenomenon or peculiar characteristic of typhus. But these are met with in other diseases than typhus; in small-pox, measles, peripneumony—in any disease. These patches were found in cholera, and some one announced it to me as a great novelty; but I knew it beforehand, although I had never seen it. Had we not been told that cholera principally attacks intemperate men, and such as live on with gastro-intestinal irritations? This was enough for me to know. All these questions run into each other: one solved, there is ground taken up for solving the others, provided people know how to compare and draw conclusions. "The patches," say they to us, "did not then exist, or were indistinct." A greater number of cases in which they did not exist at all might be found; but as they were moved by the interest of faction, they have put these aside as not smiling on the system they uphold. You may observe that it is not with these calculators as with physiological physicians, to whom all facts are good, and who hold by their method alone. Present a new or extraordinary fact to the latter, and they will tell you how it ought to be studied, to what organ it ought to be referred, with what vital act it is allied. With them the most empirical practice is equally interesting with the most rational; they reject nothing, and it is unjust to attribute the slightest exclusiveness or partiality to them.

The numerical method* entertaining the quixotic aim of proving that in typhus or dothientery the affection of the follicles is everything, and the rest nothing, considers itself bound to maintain that diarrhœa is not owing to an affection of the great intestine; indeed, it is forced to do so, for as the physiological physicians had proved that the diarrhœa is owing to the descent of the irritation below the ileo-cæcal valve, and as there is diarrhœa in dothientery, had that proposition been allowed to remain untouched, its entity would have been trenchanted upon, and the colon must have been considered as the seat, and its inflammation as the cause. It therefore determined to attribute the diarrhœa to the small

intestine; many people, it says, who had this affection, exhibited scarcely any redness of the great intestine: this slight alteration is insufficient to produce diarrhœa. Moreover, it adds, on calculation I observe that in the cases where it is met with, the affection of the follicles has been more frequently evident than it; therefore, it is on this affection that the diarrhœa depends. Now, this conclusion is still the result of the same mode of procedure, which consists in keeping account of the state of all the organs in patients that die in typhus, and saying that the variable or the least marked lesions do not essentially belong to it, and cannot be characteristics of it. For the rest, this mode of procedure affords no notion as to the causes of these lesions, and is reducible to the assertion, that sometimes it is the entity, and at other times something else, that produces them; which is in fact, speaking, yet saying nothing. It is not remarked that every predominant lesion may be accompanied, in an accessory shape, by all manner of secondary lesions, (since inflammation proceeds in all kinds of ways), and that what is advanced about the cadaveric lesions of other organs than the digestive canal compared to those of that canal, may be advanced in the contrary sense, about the lesions of the canal as compared with those of other organs. Lest this should not be clear to you, I will proceed to make it so.

Referring to generalities, let us suppose that there is a phlegmasia of an organ; if it is not arrested other organs become inflamed: this is a fact, and cannot be made into an entity. Let it be a gastritis: if you stay it before there has been any communication, it will have been simply a gastritis; but if you allow it to go on, it may become complicated in various ways: cold acting on the lungs, you will have catarrh or peripneumony: the digestive canal being perforated, you will have peritonitis: mental affections coming into play, you will have cerebral irritation, &c. Let it be pneumonia: there may be secondarily a gastritis, or pleurisy, or cardio-arteritis, or rheumatism; and each of these diseases may in turn predominate and become the primum mobile of the pathological phenomena and anatomical alterations.

Would you go and take them all one after the other as the centre of an entity, and say, in such an affection we found the stomach so many times inflamed; so many times thinned; the spleen so many times swelled, so many times softened; the lungs so often hepatized, or gorged, or crepitant, or tubercular, &c.? This sterile enumeration would neither show you the causes nor the connexion of all these phenomena, and would lead you to the reconstruction of the ancient entities, and to all the trash of the old ontology. How much more simple is our method, when we say that the causes should be studied, the effects followed up, that no disease has an invariable course, that inflam-

* Throughout this lecture, M. Broussais addresses himself to the refutation of the arguments that are the support of this method, avoiding, with Gallic politeness, immediate allusion to its supporters, even *en masse*. Hence the terms "it is forced," "it is determined," and so forth, which, without this explanation, might appear absurd.—J. M. G.

mation extends if not arrested, that it changes posture, &c.

The numerical method has attributed a host of secondary lesions to fever, and has regarded the affection of the follicles as the only anterior lesion. But what can it understand by fever, when they attribute to it sore throats, pulmonary or cerebral congestions, cystites, gastrites, enterites, &c.? Is fever the acceleration of the blood's circulation? but this alone could not produce so many diseases: you daily accelerate the circulation by walking, by stimulants, by violent movements, without inflammation ensuing. Is it the collection of symptoms or organic lesions of dothinentery, as indeed they say it is, in answer to the question, "what is fever?" at the same time that they enumerate both, in order to give an idea of fever? But on the one hand fever is a symptom, and I wish to know how a symptom can produce so many functional and organic lesions as are admitted in dothinentery; and, on the other hand, if fever is only a collection of lesions, I wish to know what produced those lesions. What can be said in reply, except that it is inflammation?

The numerical method pretends to determine the medium duration of diseases, and of dothinentery in particular. But what certainty is there in the duration assigned to them, unless you take account of the causes, the varieties of symptoms, ages, temperaments, predispositions, treatments, &c.? Apply, therefore, your calculation to all the circumstances and all the divisions and subdivisions of each of them; apply it to patients that have been treated in a certain manner, to those treated in a certain other manner, to those that have been purged, to those that have been bled, &c. Here is calculation enough: deal thus with all diseases, and you may make myriads of volumes, and God knows when you will finish. The numerical method is a good one, but people should know how to make use of it.

The numerical method attempts to find the essential symptoms by expunging those that are not met with in the majority of cases. It says, such symptoms are met with ten times, such others six times, others five times, and such others were altogether wanting: therefore, these are necessary and essential, and those are only secondary, and make no part of the disease. It has created factitious entities, and has lost itself in a frightful waste; and had it treated diseases otherwise than it did, results very different from those arrived at would have been obtained. And what have all these proceedings proved? that there is a host of circumstances to which its calculations have not been and never can be applied: that the succession of symptoms established by it is not, as asserted, constant: that the alteration which is given as fundamental is no longer so: that dothinentery has not an

invariable course, and that, in that form, is nothing but a factitious entity, an imaginary being.

The numerical method has rejected the name of gastro-enteritis because, according to it, the stomach and intestines are not always inflamed. If it has not always found the stomach inflamed, you know the reasons of it; I have before stated them, and they apply to the intestines also. As to the follicles, which they maintain are always affected, they never are alone inflamed to disorganization, but they may retain the marks of phlegmasia when the mucous membrane has almost entirely lost them, because their organization is more complicated, and they constitute kinds of minute parenchymata. But this is common to all the mucous membranes; the complicated tissues to which they have communicated phlegmasia, or that have it concurrently with them, retain it longer, and often exhibit more profound alterations. For the rest, I have in vain sought for alterations of the follicles, unaccompanied with that of the intestinal mucous membrane, and in this particular I have my suspicions of the veracity of the numerical method. Although it has minutely calculated all the cadaveric phenomena, it has founded the nervous phenomena on nothing, and has left them in a vague. It has not seen that the brain collects the irritations and becomes disorganized with or without traces of sanguineous congestion: it has said that the cerebral symptoms depend on the follicles—which is an absurdity—and that they should be left just as they were found. More than this: it has even laid at the door of the follicles the incipient phenomena of lassitude, headach, vomiting, &c., which indicate that the irritation is commenced in the upper portion, or that, after beginning in the middle or lower portion, it has ascended to the upper. The two latter cases may perhaps be imagined to tally with the assertion, but to say that when the vomiting is at the onset, they depend on an affection of the follicles, is really too much. The following is scarcely less: there being but slight alteration of the great intestine only three times in eighty without any diarrhoea, it has been concluded that such alteration is not requisite to the production of diarrhoea—instead of saying that this alteration was insufficient to produce it. Pain of the belly, it says, was only wanting in nine out of eighty-four times. This tells against the treatment; for this pain may be got rid of easily in three or four days, and if it lasts longer, it is in consequence of bad treatment.

As regards the gastric symptoms, we have seen that it is ignorant of their value, and makes them subordinate sometimes to the follicles and sometimes to the fever; but again I ask, what is fever? how does it produce symptoms, itself being only a symptom? how prove that it is not the effect of a

lesion? I have tired out the medical world with refutations of these false ideas, and I can scarcely imagine that there is a head so weak as to reproduce them.

In the treatment we use nothing but drugs pitted against the symptoms, and an ignorance in appreciating their effects. It is even said that any medication whatever is indifferent with regard to the progress of the disease—a pitiful falsehood, that proves how entirely the part enacted by irritation has been misunderstood.

But enough of this attempt to do away with gastro-enteritis.

—o—

A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By WILLIAM STOKER, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

(Continued from page 427.)

IN 1810, the condition of the working classes being much deteriorated, partly by the cheapness of ardent spirits, but chiefly by want of employment, and that of the middle classes from want of trade (see Medical Report for that year), a remarkable revolution in the external character and nature of epidemics took place. Fevers became more typhoid or pestilential than had been before observed. The prominent symptoms were those of debility, marked by feebleness of the pulse and coldness of skin, such as had not been previously observed, and they were accompanied by corresponding alterations in the external characters of the blood, which, instead of being firmly coagulated and sily on the surface, as happened before, at least at the commencement of the disease, was seldom so at any stage of it. This was stated in my report of that year; and also that crises and septenary movements still continued. It appears also in the report of that year, that even then the aggravation of symptoms led to the question of late years so vital—whether or not a new disease, *sui generis*, had been generated here or imported from abroad? The number admitted greatly exceeded that from the same district in the preceding year, and the number of deaths was nearly double, viz. admitted, 1774; died, 154; average mortality, one in 11 & 40-77ths*.

In 1811, there was another decline of disease, seemingly also connected with a corresponding improvement in the condition of the working classes and in trade, and partly, perhaps, with a check to disease given by the Cork-street hospital. The numbers admitted, from the whole city, were 1472,

less by 302 than the preceding year. The deaths amounted to 115, or 1 in 12 & 91-116ths, a smaller average mortality than in the preceding year.

In 1812, the malignant type of distempers which first appeared in 1810, again apparently, under a repetition of similar causes recommenced; and notwithstanding the reduction of the numbers admitted in the preceding year, increased to 2265, additional accommodation being provided at the Cork-street hospital to meet the pressure. There was not, however, an increased average of mortality, the deaths being 166, or 1 in 13 & 107-166ths admissions.

In 1813 the numbers affected by distempers of nearly the same type as that of 1810, further increased; but whether owing to a more appropriate treatment in mixed cases and in distinct forms of typhoid and inflammatory disease, successfully adopted, chiefly according to the indications afforded by morbid actions, and co-existing alterations in the external characters of the blood, already intimated when treating on the pestilence of 1810, or to earlier application for admission, or to both those causes combined, the mortality in the Cork-street hospital was in 1813 less than in the preceding year. The number admitted was 2627, deaths 164, average mortality 1 in 16 & 3-164ths.

In reviewing this lessening average mortality of the prevailing fever since 1810, it should be noticed that a comparative trial was made in that year, of small bleedings in all cases of epidemic fever, on the principles of Drs. Clutterbuck and Broussais, and adopted by Dr. Mills—then one of the physicians to the Cork-street hospital—and of not bleeding except for obvious symptoms of inflammation according to opposite principles maintained by the other physicians of that Institution. The result of this truly important trial was given in tables, which were annexed to a letter first addressed by my colleagues, Drs. Barker, Hagan, and Gamble, and myself, to the Managing Committee, afterwards published in the Edinburgh Medical and Surgical Journal, No. 40, and subsequently appended to my Treatise on Fever, published in London, 1814. These tables are too extensive for insertion in this sketch. The following is a reference to them:—

In col. 1, were the different months of Dr. Mills' attendance. In col. 2, all the patients, male or female, treated by him, together with the event, whether successful or otherwise; and on the same lines in col. 3, a similar statement of all the patients treated by the other physicians during the same months; to save the trouble of calculation, the proportion of deaths to recoveries in each month, among the patients of different sexes, treated by Dr. Mills and the other physicians, was given in col. 4; underneath the total result is given; and thus the reader could, by inspection, determine the merits of

* See Medical Report for the year 1810.
By Richard Gamble, M.D.

the different modes of practice, as it affected the proportional number of deaths during the whole or different periods of Dr. Mills' attendance.

It appeared, as the final result, that amongst the patients treated by blood-letting, the proportion of deaths to recoveries was as one to 11 & 49-55ths, and amongst those treated according to the more ordinary methods, as 1 in 12 & 101-110ths, a proportion differing from the former in no small degree, and justifying the conclusion, that the treatment of fever, by small and repeated general detractions of blood, was either of little efficacy or injurious.

It must add to the weight of the above conclusions to observe, that the data on which they depend had been furnished from the most authentic sources, namely, the diet tables, in which each physician enters daily the patient's diet, and at the same time registers the date of admission and dismissal, the time of remaining in the different wards, along with the final event of each case; and the different parts of the system being so contrived as to check each other, an error in the tables can scarcely exist without detection.

In 1814, the great importance of the above inquiry became still more obvious, and the absurdity of the doctrine of inflammation being the proximate cause of the typhoid epidemic distempers then prevailing, which was attempted to be established chiefly on appearances found after death; hence too, was proved the necessity of treating inflammatory fevers, or those symptomatic of inflammation, in a different manner from typhoid and other diseases symptomatic of debility. The distinguishing characters of each as well as of the morbid actions and changes in the vital fluids became then also more manifest. These circumstances, as stated in the preface, led to my Treatise on Fever, published in London, 1814, and as that was a faithful transcript of facts, I can now refer to it in support of opinions which all my subsequent experience has tended to fortify; that inflammation is not only distinct from, but opposite to either typhoid or any other disease symptomatic of debility, however it may sometimes be combined with, or modify them. Longer, and more experience than falls to the lot of most men, will, I trust, plead my excuse for maintaining my position at a time when I believe it is very necessary for preserving the *juste milieu* between exclusive humoralism on the one hand, and exclusive solidism on the other, which, I believe, more than any other cause, retarded the advance of medical science during the period embraced in this sketch, and even, I am persuaded, perverted it so far from its first design, as on some occasions to become, instead of the most beneficial, the most destructive of human inventions. The number of admissions into the Cork-street Fever

Hospital, in 1814, was 2329, the deaths 143: average mortality, 1 in 16 & 3-164ths admissions. This year's result, too, afforded evidence in favour of the opinion that idiopathic and symptomatic fevers are distinct in their nature, for it was on these principles that the cases in the hospital were then treated, more especially as respected bleeding. As diseases became more pestilential, however, the advantages of still greater caution, more especially as regards arteriotomy than those expressed in my treatise, in 1814, became obvious. (Appendix, Note C.)

Besides the evidence afforded by the experiments above detailed, of the distinctness of inflammatory fever, and typhoid disease, and of the necessity of different modes of treatment, it was fully ascertained, that epidemics at that time preserved more than since of the aguish characters which often designate idiopathic fevers.

The following table, constructed with that view, assists too to confirm the opinions of some of the best medical writers, that there is a tendency in fever to terminate favourably or unfavourably on particular days:—

On Days of Fever.	No. of Cases.
Second	2
Third	16
Fourth	45
Fifth	129
Sixth	117
Seventh	162
Eighth	173
Ninth	212
Tenth	118
Eleventh	117
Twelfth	121
Thirteenth	82
Fourteenth	79
Fifteenth	74
Sixteenth	51
Seventeenth	42
Eighteenth	30
Nineteenth	35
Twentieth	20
Twenty-first	17
Twenty-second	11
Twenty-third	8
Twenty-fourth	0
Twenty-fifth	6
Twenty-sixth	0
Twenty-seventh	0
Twenty-eighth	4
Twenty-ninth	0
Thirtieth	0
Thirty-first	2
Total	1,773.

Those crises had been marked from the day of attack to that of marked decline of the symptoms, or entire cessation of fever (and it may be observed that the greatest number of crises occurred very nearly on the days mentioned by Hippocrates, viz. 3rd, 5th, 7th 9th, 12th, and afterwards on septenary days) these periods were often so very remarkable

in hospitals, that I have frequently seen patients who, at the ordinary mid-day visit, were hot, restless, anxious, and depressed, with hurried breathing, nausea, and quick pulse, on the succeeding morning tranquil, and without complaint, with all the vital functions regular, and the appetite keen. This change was frequently accompanied with some increased evacuation, vicarious discharge, external or glandular tumour or eruption on the skin; it sometimes followed the removal of some local irritation, as that of a lumbricus from the stomach by vomiting, an occurrence I have often noticed in the hospital. Crises were more remarkable in those fevers which terminated before the tenth day, and in fever, uncombined with organic disease, or local inflammation; and this will explain why they were less noticed among the affluent than those generally admitted into hospitals; in the former class, fever being often combined with, and protracted by organic derangement, Dr. Percival stated to me at that time, that he observed septenary critical movement in the continued fevers of those of the upper ranks of life, yet he scarcely ever saw them succeeded by a complete apyrexia. In cases of idiopathic fever, convalescence frequently took place on the night after admission to the hospital (if that was on the 5th, 7th, or 9th, from the attack), or on the next succeeding to it, if on either of the intervening days; in those instances cleanliness, and removal from the action of foul and contagious air alone, giving free exertion to the operations of nature. It may be further observed, with respect to the foregoing table of critical days, that the phenomena which it exhibits as having occurred in this country, corresponded exactly with what Dr. Francis Balfour had noticed in India and the east of Europe, and that he copied it with gratifying expressions of his approval, as additional evidence in favour of his principles, into his treatise on *Sol-lunar Influence*, published at Cupar, in Scotland, 1816.

In 1815, those diurnal movements, which previously gave to idiopathic fevers more or less of a remittent or intermittent form, became less distinguishable, and the distinctness of continued fever into symptomatic and idiopathic, and into inflammatory, and typhoid disease, became still more manifest, so that appropriate treatment for each could be better prescribed. On this account it was, I believe, chiefly, that notwithstanding the numbers admitted greatly exceeded those of any preceding years, yet the mortality in the hospital was greatly diminished. There were other circumstances, however, that year, which I am sure assisted these favourable results, such as opening a new building with much larger wards than those in the old (see my report for that year), so as to increase the number of beds from 80 to 180. Besides there were earlier application and

increased confidence in the means employed. The number of patients admitted this year from the whole of the city within the Circular-road, amounted to 3789, of whom 187 died, consequently, the average mortality was only one in 20 & 47-187ths admissions*. (Appendix, Note D).

The year 1816, though so constantly cold and rainy as to destroy the sown corn and rising crops to a degree that led to famine and pestilence throughout Ireland in the two succeeding years, was itself remarkably free from both. This plenty and healthfulness were observed also over the whole of Europe. The admissions into the Cork-street hospital from the same district as in the preceding year were less by 1086, viz.: admitted 2703, deaths 173; average mortality, one in 15 admissions. The increase of the average mortality from the preceding year, arose chiefly from the admission of patients labouring under phthisis and dropsy, into the wards which would otherwise have been vacant. This frequency of phthisis, when epidemics do not prevail or are prevented, (e.g.) small-pox by vaccination, fully accords, like the alternation of ague and continued fever in the years 1808 and 9, with the opinion long received, that many congenite diseases, which do not arrive at their acme before puberty, have their fatal ravages anticipated by prevailing and malignant epidemics†.

Previously to entering upon a description of the year 1817, when famine and supervening pestilence combined to extend and aggravate the epidemics of Ireland in an extraordinary manner, a brief description of the prevailing forms of diseases immediately before that time may assist to better understanding the frightful increase and aggravation that occurred afterwards. The fever was still the synochus of Dr. Cullen, with the alteration in his definition proposed at the beginning of this section, I mean, by the substitution of pyrexia and phlogosis, occasionally for synocha, and for the cauma of Dr. Good. Dynamic or inflammatory and adynamic or typhoid fevers, were constantly presenting themselves together, but in different degrees in the same patient. Typhus fever seldom preceded, but often supervened on inflammation. Local inflammation was sometimes kindled in the course of typhus, but more frequently after either a favourable or unfavourable crisis. Typhus, too, often supervened on, or rather superseded inflammatory and chronic affections of the brain, the lungs, and liver, other vital organs, to which the labouring classes in this, as in other large cities, are much predisposed. The influence of seasons on these combinations was manifest, and very similar in successive years. The connect-

* See Medical Report for the year 1815.

By G. Hagan, M.D.

† See Medical Report for 1816. By Wm. Stoker, M.D.

tion between symptoms, and sudden changes on the weather, was very obvious. In winter, pectoral and hepatic affections, and sometimes bowel complaints from the preceding autumn, rendered continued fevers more difficult of cure. In spring, typhoid symptoms became less, and inflammatory affections more frequent, the lungs being most generally engaged. In some years, early in this century, however, a malignant influenza prevailed, to obliterate that reaction which generally marked the vernal season. On such occasions corresponding changes in the blood to those which occur in typhoid fever, warned physicians of experience to be cautious in the abstraction of blood. (Appendix Note E.)

The same treatment for the "stitches," as they denominated the prevailing distemper on these occasions, especially as regarded blood-letting, was not prescribed as for ordinary inflammation of the lungs. In summer, epidemics became more typhoid, the head being most generally engaged, the same corresponding changes in the blood contraindicating its abstraction; the biliary system, too, was much affected. In autumn, the typhoid type of disease became in general more urgent than in summer, and in some years gave a more pestilential character to prevailing diseases. These effects of season, however, and their malign influence on the epidemic constitution of the air, were aggravated by predisposition from other causes both moral and physical, (e. g.) in 1813, a very fatal epidemic was propagated through Ireland by such combination of causes. Its most alarming symptoms were sudden prostration of strength, discoloration of the skin, and diminished temperature, congestion in, or excessive hemorrhages from the bowels, and alternately with these, coma, sometimes delirium tremens, putrid peripneumony, extensive dark petechiæ with ecchymoses, and bubonic tumours. The broken-down crassamentum, and the dark colour of the blood, drawn or effused, before or after death, corresponded also with these symptoms of pestilence*.

Referring again to my Annual Reports, and my Treatise on Fever, published 1815, for a fuller description of the prevailing medical theories and practice at that time, than would be compatible with the limits of this sketch, it must suffice for the present to state, that a rational empiricism was still very generally adopted, though modified by the eclectic pathology of Boerhaave and Haller, and subsequently by the ingenious theories of Baglivi, Cullen, Darwin, and Brown. Hence, though changes were carefully noted in the quality and quantity of the vital fluids and

morbid actions in the solids, still the hypotheses of accumulation or exhaustion of excitability had their influence. These modified theories, however, were afterwards generally rejected, when signs of previous inflammation were said to be so frequently detected after death, as to justify the opinion that the proximate cause of epidemic and pestilential diseases had been thus discovered, and that the ratio symptomatum, and the ratio medendi might also be explained by that circumstance alone. The post mortem examinations, however, previously published by Dr. Beddoes, and all my own experience afterwards in autopsy of diseased fluids before, and of diseased solids after death, led me to question the ultra-phlegmasiasm which was the result of such partial inquiries. In my Treatise on Fever, moreover, I stated numerous cases to prove that though signs of inflammation were often to be met with, yet that they were not always found, on examination after death, whilst autopsy before death seemed to show that even when signs of inflammation were afterwards found, they were rather adventitious than essential; and so far from being connected with the origin of the disease, they had in some cases supervened even at a late stage of it. In corroboration of the veracity of these statements and of such as I had previously made with the same view in my annual reports from the Cork-street hospital, the records regularly kept at that institution may be also referred to.

The aids which I received on these occasions from some of the most distinguished members of the different departments of medicine were such as deserve my grateful acknowledgments; and though I cannot here state them as fully as I wish, the following instances should not be omitted. Large and general bleeding in typhus and in mixed fevers being recommended by some who entertained the new doctrines, because a few examples were adduced when patients did not die under that practice, Drs. Purcell, Percival, Plunket, and Harvey, who always opposed such practice, met the arguments in favour of it by repeating the aphorism of their preceptor Dr. Cleghorn, when told of patients surviving monstrous doses of poisonous drugs, "that it is sometimes hard to kill a man." On the subject of small bleedings indiscriminately in fevers, Surgeons Richards, Crampton, Colles, Carmichael, and Wilmot, observed that inflammations which produced such morbid actions were not likely to be relieved by the abstraction of two or three ounces of blood; whilst Dr. Kirby, Dr. Macartney, and other anatomists further stated that the appearances found on the bodies of those who died of typhus, were not those of inflammation but the contrary. And Mr. Daniel Moore, an eminent apothecary, was opposed to either large or small bleedings whenever the blood, as in typhus, did not coagulate firmly, and was

* In adapting modes of treatment during this transition of febrile to more pestilential diseases, besides discontinuing arteriotomy, the substitution of leeches circa anum, and blisters to the region of the liver, were decidedly beneficial.

without sisy surface; he said it was contrary to what he saw successfully pursued by his distinguishing contemporaries, Drs. Barry, Hutchison, Quin, Plunket, and Harvey. The ultra phlegmasiasm of 1814, is now, it is true, generally disclaimed by most professors, but so long as any physician of eminence affirms that "fever is one and indivisible," and others lean towards the term "typhitis," for denominating pestilential diseases, and to the significant termination *itis*, thus to express the combinations of malignant distempers that now prevail, so long, the question must be deemed one of vital interest by every conscientious practitioner of medicine.

It may be useful to observe, previous to more practical details, that I adopt the term "idiopathic," according to its general acceptance, to distinguish between fevers not produced by other diseases, and those which are obviously symptomatic. This division is objectionable, perhaps, in a mere systematic arrangement, but often found of much practical utility, by dividing the typhous and contagious diseases from phlegmasiæ, so frequently combined with them in certain seasons, and under unfavourable circumstances predisposing to them.

The benefit derived by patients labouring under idiopathic fever from cleanliness, ventilation, cool regimen, and plentiful dilution was then generally agreed on. Even the knowledge of these important steps in the cure of fever had been the slowly acquired result of scientific research and patient observation, in opposition to long-existing prejudices.

The other remedies then recommended by experience might be arranged according to their value*, viz. purgatives, topical bleeding, antimonial powders, yeast or barm, wine, emetics, cold or tepid affusion, blisters.

Blood-letting had not been adopted as a remedy for typhus, though from the occurrence of cases in which it was indispensable on account of the combination of pulmonic inflammation, there had been frequent opportunities of judging of its efficacy; but such were its effects upon the typhoid symptoms, that the similar urgency of active inflammation could alone justify further experiments with that remedy. If, indeed, the inflammatory diathesis impeded any important function, or threatened the destruction of the organization of a vital part, and thus became the paramount consideration, it was opposed by the only effectual remedy, the proportionate employment of the lancet, but with much greater caution, however, than in cases of pure phlegmasia, for in whatever degree the symptoms of typhus attended, those of debility may be expected. If the pulse in such cases be constantly examined

during the operation, it would be found very differently affected by the same evacuation in inflammation merely. After the abstraction of the first two or three ounces of blood, which generally hurries the circulation, probably from the alarm of the patient, the pulse sometimes quickly becomes small or rebounding, and in either case denotes impending weakness. In typhus, too, the pulse is more affected by the motion of the patient, and I have known cases in which it was excited twenty beats in the minute by sitting up, and in others in which it fell as many by turning from the back on the left side.

The appearance of the blood drawn is also different, for though that taken in the first cup be slightly buffed, it rarely continues so in successive ones; on the contrary, soon after it is drawn, the crassamentum becomes dissolved or broken into fragments, tinging the serum with its colour, sometimes of a very dark brown, and sometimes of a greenish hue. The distinct and opposite consequences of these distinct and opposite states of the circulating mass, are no less remarkable and decisive. Increased vascular action and higher temperature being attendant on buffed blood, whilst weakness and failure of the pulse, and diminished warmth of the surface, and of the breath, as closely waited on dark-coloured and infirm blood. That which was most firm, coagulated, and sisy, being also generally succeeded by tumour and suppuration; but clotted and grumous blood by the speedy destruction of the part, external or internal, or by malignant pestilential tumours. Besides, the morbid appearances of the blood at this time not only indicated such distinctions between idiopathic and symptomatic disease, by its colour and relative degrees of sizziness, but also by the shades of colour, aid was given to distinguish between the separate diseases of the principal viscera in the cavities of the thorax and the abdomen. These facts may be seen more fully detailed in my *Pathological Observations*, and also cases to exemplify, as well as experiments I afterwards instituted to illustrate their application in the diagnoses and treatment of diseases. (See Appendix, Note G).

It is probable that much of the violent opposition among medical authorities on this subject, would have been reconciled if all the circumstances under which blood-letting had been used were attended to; thus it might have been effectual in epidemics produced by sudden changes of the weather in particular situations, such being mostly inflammatory. It seems probable, that the fever partook of that form for which bleeding was recommended by Sydenham, Munro, Huxham, and Pringle, and more lately by Borthwick; for they in general justified its use by the degree of inflammatory disease, designated by morbid action and sisy blood. That, however, it would be found not only inexpedient for the

* See my *Treatise on Fever*. London, 1814.

cure of typhoid fever, when uncombined with inflammation, as then happened more frequently every successive year, but prejudicial, is consonant with the views taken by the ablest writers of the past, and by the most experienced practitioners of this century. The comparative trial of small bleedings, made in 1810, already referred to, was decidedly unfavourable to that practice, and the black sloughing ulcers, which resulted from the puncture of a lancet in the veins, and still more so in the arteries, rendered it still more objectionable*.

In concluding this section on the growth of disease and pestilence during the period it embraces, it may be useful to observe, in connection with contemporary events, that it appears from a carefully constructed table of admissions to, and deaths in the Cork-street Fever Hospital, that the most remarkable increase of admissions was in the years 1806, 1810, and 1815, and that it was in the years 1807, 1808, and 1810, that the average mortality increased most remarkably. That at the conclusion of 1816, however, owing to the diminution of mortality each year, from 1810, under the treatment then adopted, the mortality was reduced nearly to that which took place the first three years after the opening of the institution and before the increased fatality of 1807. But these facts, however important they may be with respect to this section, will be found still more so, when viewed in connection with the details next to be entered on. On both accounts, the following table affords, I think, a suitable link between the former and latter period included in this and the next section:—

Years.	Admitted.	Died.	Mortality.
1804	415	29	1 in 14
1806	1264	103	1 in 12
1810	1774	155	1 in 11
1816	2703	173	1 in 15
Total in 12 years, to 1816 inclusive.	22884	1570	1 in 14.9-15ths.

This table exhibits the numbers admitted, the relative numbers who died, and the average mortality in the years 1804, 1806, 1810, and 1816, and lastly, for the first twelve years from the opening of the Cork-street House of Recovery.

(To be continued.)

* The results of the comparative trials of indiscriminate bleeding in mixed fever, and only when signs of inflammation were manifest, would have been obviously far more decisive, had all the cases of the latter description been separated. Such a separation was attempted by myself; but owing to the difficulty of it, and the pressure of other avocations, it was abandoned.

Reviews.

An Introduction to Hospital Practice in various Complaints; being a Clinical Report of Fever, Gout, Rheumatism, Cholera, Jaundice, Erysipelas, Insanity, &c., and Diseases of the Chest and Heart, with Remarks on their Pathology and Treatment. By C. J. B. Aldis, M.A., M.B., and Inceptor Candidate of the Royal College of Surgeons, London. 8vo. pp. 125. London: Longman and Co. 1835.

THIS volume is a clinical report of medical cases treated in St. George's Hospital, and is very creditable to the author. It often surprises us that reports of the medical practice of our hospitals, infirmaries, and dispensaries are like angels' visits, while surgical ones are blazoned forth every day. This arises from the fact, that the College of Surgeons has much more influence and power in manufacturing young doctors than the once powerful, but now obsolete Board of Physicians; while the Apothecaries' Society is too juvenile to enforce a proper knowledge of practical medicine.

It is really preposterous to reflect, that the surgeons and apothecaries of this country, who are in reality the physicians of the public, should be allowed to assume that privilege without a proper experience in medical diseases. The College of Surgeons never examine, and indeed that body is wholly incompetent in such maladies, while the Apothecaries' Company extends its examinations to all the medical sciences, but especially to materia medica and therapeutics. Few in that quarter are more competent than in the former; and most of both boards know as much about modern pathology as about the hieroglyphics of the ancient Egyptians. But these bodies are however entitled to credit for shrewdness, in exceeding their legal rights, and usurping those of the philosophers of the Physicians' College. It is, however, lamentable to meditate on the inattention paid by physicians of hospitals and dispensaries, and by students, to medical diseases, but most by the latter, who are to learn pathology and sound practice by intuition or inspiration.

In proof of this position, we state that surgeons' wards are crowded, the physicians'

deserted; and by those who are to obtain a livelihood by the practice of medicine, and not of surgery. His Majesty's leiges are the sufferers; but the Medical Reform Act will reverse the present order of things, and it ought to have passed three centuries since.

Dr. Aldis remarks in his preface, that it is only of late that medical clinical reports were recorded in the hospitals; and in this statement he is perfectly correct. Even now such reports are superficial, puerile, and unworthy of the physicians of London in nearly the middle of the nineteenth century.

Dr. Aldis has set an example to other physicians, which we hope to see followed. He has published a concise report of many diseases, and appended remarks on pathology after each class. The cases are, however, given too briefly, and the constitution, habits, &c. of the patients generally overlooked—a fault in most of our clinical reports. The principles and practice recommended in the work are worthy of adoption.

—o—

A Further Inquiry concerning Constitutional Irritation and the Pathology of the Nervous System. By Benjamin Travers, F. R. S. &c., &c. London: Longman and Co. 1835.

THE former work of Mr. Travers, on Constitutional Irritation, excited much criticism, both of a favourable and unfavourable kind. Most men engaged in practice, perceived that it contained a leading idea of great therapeutic importance, and abounded in observations only to be made at the bed-side of the patient. But the nature of that leading idea, in itself delicate and obscure, required for its propagation particular qualities both in the reader and the author. The former had need of comprehensiveness of intellect, and a determination to examine, without reference to minor faults, the practical utility of the principles inculcated; and to the latter were necessary, if he hoped for a general accordance with his sentiments among the profession, much clearness and precision of language, and that power of illustration which is necessary to make theoretic notions plain to men not accustomed

to exercise the power of reasoning further than its primary and obvious steps. If it be true that a want of the first qualities on the part of his reviewers, subjected the work of Mr. Travers to some animadversions which were undeserved, it is not less true, that though not a tame or an inelegant writer, his style is not happily adapted to his subject. His mode of writing is easy and flowing, but with too much redundancy; its great fault, however, is looseness. He sometimes uses identical, or very similar terms to express different ideas, or vice versa: the same conceptions are clothed by him in varied terms of expression. This is a laxity from which none of us can be entirely free, and indeed, upon subjects which cannot be mistaken, it may have something of elegance in it. But whoever writes other than drily and tersely, upon matters which do not address the senses, must write incomprehensibly. Indeed, of some faults of composition our author seems aware, for he says, in the preface of his work, that his "only regret has been, it had not fallen to other hands, in which he is satisfied it might have been so treated as to have risen to the dignity of a discourse on the Philosophy of Surgery." Now, we presume Mr. Travers to have advanced beyond the period when an author employs a deprecatory preface as a graceful appendage, which has no meaning. Taking him then to be in earnest, we also regret that nature and education had not more peculiarly fitted him for his task; but we do not agree with him in regretting that it had not fallen into other hands, because, though more expressive writers might have been found among our contemporaries, we know none in whom the persevering observation, and the originality evinced in his productions, could have been met with.

The "Inquiry" is not a work which can be completely analyzed; it must be read, well considered, and compared with its details of cases and bed-side occurrences, ere its value can be properly estimated. We shall not, therefore, abstract much of it, but shall employ ourselves to unfold and examine the principles upon which it is written, which we are tempted to do upon a more extended scale than usual, because the review in the pages of our respected contemporary, the

Medico-Chirurgical, in our opinion conveys very erroneous impressions on the subject of irritation—impressions not the less erroneous because they are shared by many ardent and intelligent pathologists, with most of the unthinking part of the profession. A fashion has grown up of late to believe scarcely anything can happen in the economy without some visual or tangible change, either chemical or mechanical: or that if any effects do occur which give us no sensible evidence, they are few and unimportant, or from their nature inscrutable, and therefore not legitimate subjects for study, or that their scrutiny can only be made by advancing our physical methods of investigation to a higher degree. Now, to these opinions we are utterly opposed. We affirm as a fact, that many *actions* of the organs of the body are found to go wrong without there being any perceptible change in the structure. That where changes of structure occur, they do not in many instances explain all the disease; that any advance in physical science is not hastily to be looked for, but that men have now and have always had faculties to observe the *laws* of the unknown powers which are presumed to exist in the animal economy; and although we cannot explain their nature we can prove by experiment that they are under our control. If by bark a man be cured of ague, is not that a fact as positive and as useful to be known as that in the same disease the spleen is engorged; yet I cannot explain the essence of ague. From observing it in various degrees and circumstances, I establish some of its laws; namely, that it occurs in wet places, at particular seasons, is often attended with internal engorgements, &c. A man has a blow on the testicle, and it makes him sick; to be sick is an act of the stomach; the stomach, therefore, and the testicle suffer together. They sympathize then; but other parts sympathize also, and in various ways. We cannot find out how this sympathy is established, but we can observe in what particulars the sympathies vary, what increases them, whether any thing can restrain them. Thus we classify the phenomena, and ascertain the laws of sympathy, with the same certainty though not to the same extent as the laws of motion. Now it is not uncommon in

diseased states to observe very strange effects of this kind take place between remote parts; but as these are not always attended with suffering or pain, a word was required capable of comprising all the disturbances of action that may occur in structures distant from the part first affected. The word selected is constitutional irritation; it may not be a good one; but that is a matter of taste. It is in general use, and the ideas attached to it are becoming every day more clear and definite. It is generally understood to mean a series of effects the causes of which are not known, but to the knowledge of the laws of which a great approximation has been made: and it is often restricted to those cases where the communication between the diseased part and the rest of the economy appears to be made through the medium of the nervous system only. Mr. Travers embraces many other subjects in his Inquiry, but that arises from his particular opinions; for he considers even the purulent deposits which sometimes occur in viscera remote from a wounded part, to be the result of long-continued irritation rather than of absorption.

The commonest forms of constitutional irritation are hectic fever, consequent on suppuration, and the sympathetic fever which follows injuries; of the latter Mr. Abernethy has given a very good account in his lectures; but every one must have observed that the sympathetic fever varies so much in its symptoms and effects as to require a much more extended account of it than has yet been given. Mr. Travers enters not far into this particular subject, though he mentions many facts and cases that bear upon it; but his attention seems to have been chiefly directed to those instances where formidable or fatal effects have supervened on injury, in consequence of the previous condition of the patient, and where the mode of connexion between the two causes was obscure. But perhaps here he should speak for himself, which he does with much force.

“The term irritation, in a pathological sense, is by some protested against as of hypothetical existence, like the Archæus of old; let practical men substitute another term equally significant and intelligible, for the derangement of the presiding nervous agency of a part or the system, and the symptoms thereto belonging. They are not

less marked than those of inflammation and fever, neither of which approach to substitutes, for in numberless instances neither are present. Nor will contractility, sensibility, erythism, do one whit better in point of accuracy, nor excess, or defect, or perversion of nutrition; or innervation, which last comes nearest to the definition, be more eligible. It is a monstrous evil in science to multiply even synonymous terms: the term irritation was not of my choice, but in constant, though I grant imprecise, use; yet I know of none equally unexceptionable to convey the sense which custom has rendered almost universal, and in my judgment, reason and experience confirm.

"But the signs of irritation, it is said, are but morbid sympathies, and the expression of them, those of inflammation and fever. If local irritation be ever so strictly local, it is still the derangement of that local sympathy which puts the nerves and vessels and other constituents of the affected texture in consent, although the derangement may not be such as to excite inflammation, or in the remotest degree to affect the constitution; such a sympathy is nevertheless indispensable to the phenomenon of local irritation; and to that of constitutional irritation à fortiori it is directly instrumental. In the first case it may be so inconsiderable as not to be recognized as an object for medical interference, in the second it is always palpable to observation; so that sympathy is bound up with its existence. But sympathy is a healthy phenomenon, and disturbed or morbid sympathy could not be an admissible synonyme for irritation, because it is, as I have before said, not a primary condition. It must have material to act upon; an irritant is essential to constitute irritation. The irritant in relation to the part or system is morbid; the sympathy only becomes morbid when it appears as an instrument or sign of irritation.

"If irritation and inflammation are co-relative terms for the same state, how happens it that the former is so often present without the latter? and if the symptoms of constitutional irritation are those of idiopathic fever, how is it that they vary in so many cases, one from the other? If they are capable of being confounded, not I alone err, but better informed and abler men than myself are in error. The fact is undeniable that the one often merges in the other, and that different febrile conditions supervene upon that of irritation; that the sympathetic fevers of inflammation and mortification are synochus and typhus fevers, and fairly warrant the inference, that similar conditions of body to those present in injuries and external inflammations are present in idiopathic fever; that perhaps sympathetic cannot always be distinguished from idiopathic; some have thought never: but unless it be fair to say that because the pulse of an hysterical girl or of a nervous dyspeptic beats a hundred and twenty in a

minute on the visit of the physician, ergo, they are the subjects of fever, I maintain the distinctness of the constitutional state which I have described as a result of local injury, from fever under any modification. They mistake me who suppose, that the symptoms which I have had occasion to exhibit in the progress of many cases, have been other than symptoms of fever, in my view more than in theirs; but that in many, the symptoms have been either for a time, or altogether unaltered to fever, and, therefore, improperly designated by the term 'irritative fever,' and that a considerable proportion of cases falling under the observation of surgeons is of this description, I re-assert, without fear of contradiction from those who exercise discrimination and are without prejudice. Inflammation and fever in acute cases come to the relief of irritation, local and constitutional, which may be said to terminate in them: on the other hand, irritation may predominate to the exclusion, or at least in the absence, of fever, for months together, and ultimately destroy, (unless healthy secretions, rest, and appetite, are legitimate symptoms of fever), as it may destroy before inflammation and fever have had time to form."

Now this we consider good sense; and we are not to be driven from the lessons of observation and experience, backed by an accordance of sentiment on the part of such men as Hunter, Cooper, and Abernethy, not to mention older writers, because morbid anatomy has done much, and because some pathologists fancy that to dissect the body, and profess to chop logic, are sufficient to form a sound practitioner; but on this topic also our author expresses himself so well, that we must make another quotation.

"It is familiar to observation, that the greatest benefits to science as to knowledge in general, admit of being converted into positive evils by exclusive study and abstract speculation. To illustrate my meaning—if the study of diseased actions had gone hand in hand with that of diseased structures, and the wards had contributed their fair proportion with the museum, it is impossible that such a doctrine could ever have been advanced.

"The effect of morbid anatomy holding the first and almost the only place in the mind of the medical inquirer, is to substitute effect for cause, the laws of physics for the laws of life, to confound the cause of death with the cause of disease, and in short to obscure by attempts at simplification. I venerate that study for its power of confirming or correcting the opinions of the cautious and intelligent student of living nature; of shedding light where darkness reigned supreme; developing and enabling us to connect and compare the characters of morbid changes with the phenomena of disease

during life, and thus to establish inferences, and gradually to arrive at a knowledge of the principles and laws which regulate morbid actions. And there can be no doubt that science is indebted to pathological anatomy for great advances in our time, subjected to the correction of minds well tutored and long disciplined at the bed-side: but this must be both the initiative and the moderator of our post mortem researches, or the museum becomes a thing apart, a mere collection of curiosities, quite as capable of perverting, as of guiding aright the mind of the beholder.

“When I entered the profession at the commencement of the present century, this department of pathology was comparatively barren, and beginning only to be cultivated: the example of Baillie was held in high esteem, but the education of physicians had not, with almost this exception, embraced the details of structure, and was very deficient in morbid anatomy. The reaction about that period commencing, as in the example of Farre, has since that time become general, and so increasing, as already in some branches to have reached a high point of cultivation—witness the labours of Abercrombie and Bright. In France and Germany, these labours have been prosecuted with great zeal and success. Of what they will effect for the extension of scientific pathology and the improvement of practical medicine, we may take as earnest what has been already done by Laennec and others. In surgery, which has necessarily held a closer alliance with anatomy from an earlier date, the advance has been most unequivocally illustrated, within the period of which I have spoken, by the history of ophthalmology, the diseases of blood-vessels, of joints, &c.

“But we begin at the wrong end if we lose sight of the principle which should guide these researches—if, unlike the illustrious Morgagni and his school, we overlook or do not specially cherish the connexion between the symptoms and the seats and causes of disease; and a very doubtful service would be rendered to science, if the analysis and classification of the various changes met with in dead bodies were to be employed as instruments for the synthetical arrangement and elucidation of the vital phenomena—in fact, for the natural history of disease.”

We conclude this notice of the first part of Mr. Travers' work, recommending our professional brethren to study it and examine whether its principles accord with what they witness in their practice. The problems he places before us are of the first importance, and may be conveniently summed up as follows. Is there a condition where no visible alterations of texture occur, and where nevertheless the functions are sus-

pendent or disturbed? Where alterations of texture occur, are we always to consider them as the cause of disturbed function? may not such alterations be consequences of the unknown condition termed irritation? Shall we reject the examination of this question because it is difficult, and throw overboard all previous observation, and begin the study of disease afresh by the aid of the knife and scissors, the glass and the chemist's apparatus; or shall we not rather pursue the two methods at the same time? This applies to local disorder—but the same questions apply to the effects of local injury on all the general functions. Can these be impaired by agencies that cannot be recognized by the senses?—and can the laws of these agencies be traced to such an extent as to increase our therapeutical means? Lastly, has success attended our present endeavours to establish the laws of irritation? for example, is it true, as Mr. Travers thinks, that there is such a thing as *reflected* irritation, *i. e.* that when a broken leg has caused irritation in the constitution, the disorder at large re-operates, so as to cause more irritation than usual in the leg? We trust many of our readers will be induced to follow up this Inquiry in the true spirit of the author who commenced it. We are sure they will not be deterred by the clamour of those who cry out that these are metaphysical speculations. Metaphysics are cognizant only with mental phenomena. If the endeavour to discover the laws of unknown agencies be metaphysical, then astronomy is metaphysics, and Mr. Faraday, when he pursues his beautiful researches into the laws exhibited by the unknown powers, which have been called magnetic and electric influence, is not a chemist, but a metaphysician. The study of irritation is not a matter of curiosity; it is part of the business of life, and though we never can arrive at the same degree of proof as may be obtained with reference to the laws of the agents that govern the motions of dead matter, there is little doubt that we may obtain, by cautious deductions from accumulated facts, so much as will enable us to effect much practical good.

We shall review hereafter the second part of Mr. Travers' book, the subject being a fuller development of his views as relates to the Nervous System.

Observations on the Climate, Soil, and Productions of British Guiana, and on the Advantages of Emigration to, and Colonizing the Interior of that Country: together with incidental Remarks on the Diseases, their Treatment and Prevention; founded on a long experience within the Tropics. By John Hancock, M.D. Fellow of the Medico-Botanical Society of London, and of the Philosophical Society of British Guiana; &c. &c. 8vo. London: Fraser. 1835.

It appears by the preface of this essay, that the author has travelled more than any other individual in South America; and he now gives an account of his observations on a delightful part of that great territory. We shall, however, confine our extracts to his description of the "climate and diseases of the country, with hints respecting their prevention and treatment." But we shall first allow him to introduce himself to our readers.

"The author of the following pages deems it necessary briefly to advert to the grounds on which they are offered to the public. He sojourned from the year 1804 to 1828, inclusive, in South America, and chiefly in British Guiana, where he followed his professional pursuits: and with the view of acquiring some knowledge of the botany of a country most rich in medicinal plants, and of some peculiar practices followed with great success by the inland tribes, in the cure of diseases, he frequently visited the Interior by the rivers Essequibo, Demerara, Pomeroon, Orinoco, &c. On one occasion he travelled more than a thousand miles amongst the rivers, forests, and savannahs (or two thousand going and returning); and he presumes that no one has ever traversed this extensive country to a greater aggregate distance than himself;—not even excepting the wanderings of his esteemed friends Waterton and Hillhouse, or even of the illustrious Baron de Humboldt. Not wishing the matter, however, to rest on his own testimony, he has adduced the evidence of travellers who have visited the interior parts of Guiana, which will be deemed, it is hoped, sufficiently corroborative of what he has stated from his own observation.

"If the author's attention was especially directed to the divers medicinal substances, of barks, roots, gums, balsams, &c.—and which he certainly considered as the most important objects—still, it will not be supposed he could regard with indifference the climate, soil, and varied productions of a country so rich and so favoured by nature as is the country known, we might say only by the name of British Guiana."

We have had many opportunities of hear-
VOL. VIII.

ing a vast deal of diversified information on American botany from the author, at the Medico-Botanical Society, and can bear our testimony in favour of the accuracy of many of his former statements. We make this remark, as the following extracts may perhaps be questioned by some of our readers.

"*Climate and Diseases of the Country, with hints respecting their Prevention and Treatment.*—Guiana is the most favourably situated of any part of America, or the world, perhaps, with respect to the winds and sea-breezes. It lies in the main track of the equinoctial currents; whilst hurricanes, so terrific and destructive amongst the West India islands, are unknown here, and the equinoctial gales are extremely steady and uniform throughout Guiana. At Angostura, three hundred miles inland, they commence not an hour later than on the sea-coast.

"An opinion is very prevalent, that the heat of climate renders Europeans unable to labour, or encounter much fatigue in these countries. This is a great mistake; for, on the contrary, it is a fact that those who take most exercise enjoy the best health, provided they live temperately. It is the excessive use of strong liquors that proves deleterious to Europeans in hot climates, and which, together with the heat, renders them incompetent to sustain much fatigue, until they become accustomed to it. It is alleged, most erroneously, that strong liquors are necessary to counteract the debility arising from the heat. Except in great moderation, they have the contrary effect, and have ever been the chief cause of the mortality which formerly prevailed, and must ever prove dangerous to the habitual debauchee. The writer, although not the most temperate, can aver, that during an experience of twenty-five years in the warmer parts of South America, he ever enjoyed the best health when he used most exercise. In every part of the world, exercise and temperance are the greatest safeguards of health; but indolence is even more pernicious in hot climates than elsewhere.

"The sackooru and casseri form the most wholesome, nutritive, and delicious drinks (made chiefly from mixtures of cassada, maize, and sweet potatoes slightly fermented). This kind of beverage might be substituted for malt and spirituous liquors with incalculable advantage. Those who use this sort of drink, owing to its substantial and restorative properties, as we ourselves experienced, lose the desire for strong liquors. This fact, which we had previously heard reported, was confirmed amongst the Macoosies, who make constant use of such beverage: they as constantly showed a disgust for spirituous liquors, whilst the Arowaks, Warrows, and those of the coast, had an insatiable desire for them."

Dr. Hancock considers the climate of

Guiana possesses great efficacy in scrofula and phthisis, not as a prophylactic, but as a curative of these disorders, of which he has known various instances. We cannot understand how phthisis, when really present, is to be cured by any climate, or by the murderous irritants of St. John Long, or even by the peculiar method of the renowned author of "*Consumption Curable.*" The climate, however, is by no means so salubrious in other diseases, and seems to favour certain epidemics.

"Instability of climate contributes more, perhaps, than any other cause to the production of epidemic diseases. The fatal Asiatic cholera, for instance, which has pervaded almost every part of the habitable globe, excepting Guiana, arose in that part of Asia which is subject to great changes of temperature—at one time to the hot winds from sandy deserts, or the tropical seas, at another, to the chilling blasts from the *Gauts*, or from the Himalaya mountains, the highest in the world, and covered with eternal snows. In further illustration of the subject, let us contrast the steady climate of Guiana with that of Canada, where enormous changes are often experienced, and consider that the population of Quebec was last year decimated by spasmodic cholera; it is stated in the *Times* of March 6th, that *one-tenth* of the inhabitants had fallen victims to this fatal scourge.

"The yellow-fever, as before observed, has many years since totally disappeared on the coast of Guiana. In 1804 it prevailed with great mortality, chiefly amongst the sailors, who, in a state of intoxication, not unfrequently slept on the ground or on deck: they were mostly on the following day attacked with depression, dry skin, and the symptoms termed yellow fever, and in those days we actually knew of no means of averting the consequences."

Our author next gives some directions to those who visit tropical climates, which deserve attentive perusal.

"From what I have observed in the islands, especially in Martinique and Grenada, I have reason to consider their climate as far less healthy than that of Guiana. Adynamical and malignant fevers are still very fatal amongst the islands. These fevers, however, may be easily arrested at the onset;—a fact, which, strange to say, is little known, and only practised imperfectly by some few Creoles and native inhabitants: it consists in procuring a perspiration, with as little delay as possible after the fever is found to be approaching, by the use of vapour-baths and fomentations, warm sudorific drinks and enemata*; not waiting for depletion or pur-

gatives, but employing them secondarily as required.

"The common or European practice is to administer calomel and purgatives, antimony, &c.; occasionally to bleed, and apply blisters; but such measures are seldom or never known to arrest the disease. The method by sweating appears, indeed, by far the most rational, when we consider that these disorders are brought on chiefly by colds and suppressed perspiration, after heats, atmospheric vicissitudes, and intoxication: the pores of the skin becoming closed, the blood is driven inwardly upon the viscera, and becomes partially stagnant. The natural method, then, is most obviously as promptly as possible to open the obstructed pores, to drive the blood to the surface, and to promote the secretions by which the vital fluid is depurated, and on which all the functions of life most immediately depend. This should be speedily attended to before fatal lesions or inflammation become fixed on the vitals. When these indications are acted on at the commencement, they prove as efficacious as they are simple and obvious.

"It is melancholy to observe, however, that the few precious moments are suffered to elapse, very often waiting for the medical adviser, the medicaments to be prepared, or some useless affair to be attended to, whilst the principal and essential point is not thought of. By the Spaniards, too, a trifling preliminary course of antiphlogistics are employed, (*para refrescarse*). This course, however, I consider as less hurtful than that of giving strong purgatives at the beginning; for by the latter, the natural effort or elimination by the skin is counteracted—as purgatives tend to impede the secretions by the skin, and thus to retain any irritative acrimony: hence we may see good reasons (though not now recognised) why Hippocrates and the wisest of the ancients forbade the use of cathartics at the beginning of fevers or inflammations—which are one and identical, differing only in degree and the nature of the parts primarily affected. It should be observed, too, that a dry skin is a constant symptom attendant on the commencement of all the pernicious fevers and dysenteries in the tropics, and doubtless in every climate; whilst the malignant fevers, like cholera, are not unfrequently ushered in with looseness of the bowels: this should afford a hint to the followers of the cathartic plan. The same means in effect are resorted to with equal success against the dangerous fevers, dysenteries, &c. by the aborigines of North America, that of *vapour-baths*, along with the copious use of alexipharmic tisanes, or infusions of sudorific herbs; and this is the proper way of arresting typhus and all

very plentiful draughts of hot punch, a very powerful sudorific; and thus preserve themselves and their comrades on the invasion of yellow-fever.

* I have known old sailors use a method of their own with great success, that of taking

malignant fevers and dysenteries*. This supposes that we take the fever at the onset, as ever should be done if possible; and the same, followed up at later periods, together with bleeding and evacuations, and the use of stimulant frictions, as the case may require.

"The transpiration is copious in hot countries indeed, it forms the best index to the state of health; and those who know this, are enabled to guard against the more common cause of disease in hot countries, suppressed perspiration†. Unfortunately, however, very few are aware of this fact, and are fearful of using exercise, in the heat of the day especially, and they allow the main-spring of health to flag, the secretions to be suppressed; they become pale and debilitated, and obnoxious to fever. They resort to purgatives—salts, jalap, and calomel. The latter is found the more useful, (and that in repeated small doses), because it tends to restore the secretions, but is feeble and insufficient, unless assisted in its action by sudorific baths and diluting drinks. The true remedial means are generally disregarded—the cathartic system being mostly mistaken for it.

"By the Dutch physicians in the colonies, diseases were mostly ascribed to the bile and *slime*. In Europe we have the more elegant (and euphonious designation, *affections of the gastric and chylipoietic organs*, both, however, implying the same aperitive indications, directed against the supposed offending humours, scybali, &c., in the alimentary canal.

"The necessity of preserving the perspiration is more evident in warm climates

than in cold; for, in the latter, the insensible perspiration is usually sufficient for the preservation of health: but even here it has not escaped the notice of the wisest physicians, that the cutaneous discharge is the most immediately essential to life, and to the due regulation of the healthy functions: in short, we are taught by daily observation in every country, that by far the greater number of all our ailments arise from colds and suppressed perspiration; and it appears to me very surprising that a matter of such vital importance should be so lightly regarded*.

"I have long been of opinion that the exemption from phthisis on the coast of Guiana is partly owing to the gaseous emanations from the soil; but I have reason to believe that the main cause is referable to the free perspiration experienced here, together with the almost total absence of those chilling blasts which are common in other tropical regions. And the means which are found most efficient in the cure of this distemper confirm me in this opinion; that is, by the use of diaphoretic, alterative remedies, such especially as the composition of sarsa, bark of guaiacum, waik-root, &c., together with small doses of mercury, antimony, opium, and the use of vapour-baths—means which most steadily promote transpiration, urine, and all the secretions, which eliminate the causes of disease from the habit and purify the blood. Divers instances of the cure of siphilis cachexies (foul disorders), and even confirmed consumption, at Angostura and the missions, seem to me fully to justify this conclusion (see *Med. Bot. Trans.*; and the *Lancet*, 1829, and 1831-2; *Med. and Surg. Journal*, vol. iii. and v.)

"On this point I may further remark, that numberless disorders may be, at their commencement especially, most speedily removed by the means here indicated; and the *rationale*, or reasons for which, will appear sufficiently evident to those who are aware that most of our ailments, in every climate, arise from colds and suppressed perspiration, together or coincident with a morbid state of the fluids.

"When matter from extensive ulceration and abscess (as in the lungs) has not a free discharge, it becomes absorbed into the mass of circulating fluids, and produces an irritative fever, termed hectic. By repose, and warmth of the bed at night, the patient sweats, by which the fever abates. The sweating is an effort of nature to relieve the system of

* To this end nature offers us a multitude of plants in every country: amongst the most valuable here are sage, balm, hyssop, menthæ, agrimony; and they are most efficient when combined or infused together, and drunk warm in bed. Rheumatism, as well as dysentery, typhus, &c., are thus readily conquered.

† Many mariners have learnt this by long experience: I have just conversed with one who is very intelligent and worthy of confidence, (Mr. R. Featherstone of Wiveliscombe), who has made sixteen voyages to the West Indies and Demerara, twelve in the capacity of carpenter, and four as chief mate. He drinks with moderation, uses much exercise, and perspires very freely in the warm climates: although of a full habit, he has never been attacked with fever within the tropics, but enjoys the best health, and observes, that he usually grows stouter whilst there, and especially at Demerara. This I have noticed, because it tends to exemplify and confirm my own views and experience. Mr. Featherstone is now about to sail for America, and on his return will be ready to answer any further interrogatories. But many old and experienced masters of vessels will be found to bear similar testimony,

* The vapour-bath affords one of the most effectual means of opening the pores of the skin and readily averting the evils which most commonly assail us. Many ingenious contrivances for this purpose have been offered to the public, and no family ought to be without one of them; but, to persons on ship-board, or those going out to hot, to cold, or any other climate, they are truly the most essential and invaluable safeguards.

the offending humour; which is evident from this, that if we collect the clammy transudation, we find it to possess most of the properties of pus. This view of the subject, however, is disregarded; and so perverse is our pathology, that, instead of assisting, practitioners seek to suppress the salutary discharge, whilst, in general, they appear to entertain no idea of the means of altering the habit, healing the ulcers, and supporting the strength and vital powers. The means above noticed, have been found most efficient in healing ulcers in all parts of the body, internal or external.

"Views like the foregoing, however, which are chiefly built on the experience of ages, have long since been exploded as antiquated, and with the explosion, common sense has been driven from the field: no pathology is now recognised besides the unmeaning and senseless mummery about *irritation, sympathy, brain affection, thoracic affection, abdominal affection, increased action, disposition to inflame, &c.*, as though the different parts of the body were endowed with volition, and, without assignable cause, with the power of taking on any mischievous action at will."

Such are the opinions of our author, and we leave the reader to estimate them. We must however remark, that those who intend to visit Guiana, medical or civil, ought to peruse this pamphlet. It is both instructive and interesting to the general and medical reader.

—o—

Practical Anatomy of the Nerves and Blood-vessels supplying the Head, Neck, and Chest; intended as a Guide for the use of Students in the Dissection of these Structures. By Edward Cock, Demonstrator of Anatomy at Guy's Hospital. London: A. Schloss. 1835.

THE author of this little work is of opinion that it is impossible to trace the blood-vessels and nerves by following the arrangement necessarily adopted in works on descriptive anatomy; because every description commences with the original trunks; "and as they are all deeply buried beneath the surface, they are consequently the last parts to be laid bare by the knife of the dissector." He therefore begins his descriptions with the most superficial branches of vessels and nerves, and proceeds to their trunks. This method may be practised with great advantage, as well as the usual one. The little work before us is well calculated to assist the anatomical student. It is a good companion at the dissecting table, and will be very useful to those for whom it is intended.

Compendium of the Ligaments; illustrated by Woodcuts, with the Articular Cartilages, interarticular or moveable Fibro-cartilages, synovial Membranes, and Bursa Mucosa of the Joints; the Mode of Union, and the Bones entering into the formation of each; and an Outline of the Dislocations, Fractures, Physiology, and Pathology. By A. McNab, Junr., Member of the Royal College of Surgeons. London: Henry Renshaw.

THIS is a most useful compendium for students. It contains every thing its title sets forth, and places the diseases to which it refers in a scientific view. It gives the anatomy, pathology, and treatment of dislocations and fractures in a clear and concise manner, and is an instructive work to students and junior practitioners. We are great advocates of works of this kind, as they save those commencing the study of medicine a vast deal of expense, and they often contain as much as some of the largest works on the same subject. But when students have arrived at their second or third session, they ought to procure the latest editions of the standard systematic works on the different sciences.

—o—

An Introduction to the Study of Practical Medicine; being an Outline of the leading Facts and Principles of the Science, as taught in a Course of Lectures delivered in the Marischal College of Aberdeen. By John Macrobin, M.D., Junior Professor of Medicine. Part I. 8vo. pp. 226. London: Higley. 1835.

THE author of this work confines himself in this part to the pathology and treatment of congestions, inflammations, hæmorrhages, dropsies, and fevers, and these diseases he describes with great accuracy. He details the ancient and modern opinions, and has executed the task he has undertaken with much ability. We need scarcely observe that a work on the practice of medicine cannot be reviewed to the satisfaction of our readers or to the author, and both must be content with the expression of our opinion of its merits or demerits. Dr. Macrobin is entitled to praise for the arrangement he has adopted, and we think, if the remainder of the work be equally well elucidated, it will be a valuable manual of the practice of medicine.

An Experimental Guide to Chemistry. By E. Davy, M.R.C.S. 12mo. London. 1835.

THIS is a very useful manual, and admirably adapted to impress the elementary facts of chemistry on the mind of the beginner. Its plan is to render everything obvious to the senses, by deducing each principle from some simple and striking experiment. The work, though intended only for the tyro, bears evident traces of the hand of a scientific and experienced chemist, who is capable of illustrating the study on a much ampler scale. We hope Mr. Davy will follow up this small but useful essay with one adapted to more advanced students.

—o—

The London Surgical Pocket Book, Alphabetically arranged from the Lectures and Works of the late Mr. Abernethy, Sir Astley Cooper, Mr. Lawrence, &c. &c.: with a Pharmacopœia and Glossary of Terms. London: Sherwood and Co.

THIS work is well executed, and supplies the place of the Surgeons' Vade-mecum. It is one of those useful and comprehensive manuals now so popular. Every student and junior practitioner ought to possess it. The compiler has laid the best national and foreign works under contribution, and has compressed a vast deal of information into a very small space. The work only requires to be known to be greatly encouraged.

—o—

DUPUYTREN'S CLINIC.

Sarcocele.

A MAN about thirty years of age had suffered for a long time with a hard, smooth, voluminous tumour in the left side of the scrotum. He felt in it occasional lancinating pains; and towards the summit of the tumour, it was thought a slight fluctuation could be perceived. The affection had obstinately resisted every remedy. The spermatic cord appeared healthy, and no swelling of the inguinal glands could be detected. The weight of the tumour, its size, the character of the pains, the slightly altered colour of the patient, all induced the surgeon to believe that he had to do with a true sarcocele. Nevertheless, the fluctuation which had been thought to exist, and more particularly the unfortunate examples of hydrocele, with cartilaginous degeneration of the tunica vaginalis, in which the mistake had not been discovered till after the extirpation of the testicle, have for a

long time made it a rule with M. Dupuytren, in all operations for sarcocele, to have recourse to a method which effectually places him beyond the reach of such an error. This method consists in first making an incision in the skin, extending from the external abdominal ring to the base of the scrotum. This incision is equally necessary in the case of sarcocele, and in that of cartilaginous hydrocele, in order to uncover the testicle enveloped in the tunica vaginalis. The tumour being thus laid bare, an explorative puncture is made in a central point, and often in various other places, through the tunica vaginalis. If this puncture gives issue to a liquid, and thus makes known a hydrocele, a portion of the cartilaginous tunica vaginalis is excised; the wound is filled with lint, and the testicle is preserved. If on the other hand, (as happened in the instance before us), the puncture gives exit only to blood, or to no liquid at all, we are assured that the tumour is a sarcocele, and proceed to its extirpation. A remarkable case of cartilaginous hydrocele occurred at the Hôtel Dieu, which M. Dupuytren himself believed to be a sarcocele, and in which he would inevitably have fallen into the error of extirpating the testicle, if he had not had recourse to this explorative method.

This method was adopted on the present occasion. After having tied the external pudic artery, and made the explorative puncture, M. Dupuytren seized and drew forward the scrotum with his left hand; and with a few strokes of the bistoury, the tumour was disengaged. The spermatic cord was then dissected out, and held with a tenaculum while the vessels were tied, and was then divided. The wound was dressed an hour after the operation.

The examination of the testicle revealed a substance which was fibrous in some places, cencephaloid in others, interspersed with what appeared to be scrofulous tubercles. We say *appeared*; for we believe if M. Dupuytren had touched the parts which he took for tubercles, he would have recognized a substance analogous to the yellow tissue, of which he has himself given so exact a description. The parts in question were resistant, elastic, very yellow, and not pulaceous, as tubercles are. The tumour was formed at the expense of the testicle itself, which had acquired perhaps twenty times its natural volume. The tunica albuginea was adherent in various points; and was traversed by a great number of voluminous vessels.

Amputation of the Breast.

Case 1.—A woman aged thirty-eight years, the mother of six children, all of which she has suckled, had an ulcerated cancerous tumour of the left breast, occupying the whole of the mammary gland. There were lancinating pains in it, with considerable emaciation, and a swelling of some of the

glands of the axilla, regarded by M. Dupuytren as symptomatic. Two semi-elliptic incisions uncovered the tumour; and their external angle was prolonged to the enlarged axillary glands. The mammary gland having been dissected out, there was perceived under the lips of the wound, a series of little tumours. They were removed along with a strip of cellular tissue, which had been left attached to the mammary gland: and at length the inflamed glands in the axilla were drawn out, still attached to the mammary tumour, by means of the chain of little tumours already mentioned. The diseased axillary glands extended to the length of two inches, beyond which a ligature was placed, to guard against a flow of blood from the neighbouring vessels. A stroke of the bistoury divided this chain; one half being taken away with the tumour, and the other being attached to the ligature, with which they will come away. A great number of vessels of considerable size gave out blood, and were tied. In amputations of the breast in women who have suckled several children, the vessels are much larger than in females who have never given milk. The patient was removed to bed; and the wound was not dressed till the expiration of an hour.

On examining the tumour, the mammary gland was found to have degenerated in various points into a fibrous matter; and in others, invaded and hollowed out by the carcinomatous ulcer. The glands taken from the axilla yielded, on being cut, a whitish matter; which on being collected on the blade of the knife, assumed a milky character.

Case 2.—A woman, forty-five years of age, with a delicate constitution, thin, and of a nervous temperament, had in the left breast a scirrhus tumour, moveable, ulcerated in the centre in the situation of the nipple, and fungous. The tumour appeared to have commenced in the gland, and to have invaded all the surrounding cellular tissue, giving rise to lancinating pains. After her entrance into the hospital, the patient experienced a kind of nervous excitement, which made her ardently desire the operation, and gave her a sort of factitious courage. This excitement is often the forerunner of nervous delirium, and may sometimes produce unfortunate consequences, in the most simple and skilfully performed operations.

The patient was placed in a chair, with the arms and body enveloped in a towel. The operator standing behind the chair, in order not to obstruct the view of his proceedings, laid bare the tumour by two semicircular incisions, which inclosed the whole of the mammary gland. The tumour was then dissected out, from the outer side (the axilla) towards the inner (the sternum), and was detached entire. A portion of the great pectoral muscle was removed, because the cellular tissue connected with it was affected.

Only four ligatures were applied, no other artery pouring out blood. Nevertheless the wound was not dressed for an hour, in order to avoid secondary hæmorrhage.

The dissection was made from the axilla towards the sternum, because no gland was observed to be enlarged in the first of these regions. This proceeding, which M. Dupuytren has adopted for more than twenty years, has the advantage of occasioning less pain to the patient; for the first strokes of the bistoury divide the nervous trunks which are distributed to the mamma and the neighbouring parts. But it is not proper in those cases in which there are inflamed axillary glands; for then, if the dissection be commenced on that side, we cut the bands which unite those glands to the mamma; and thus lose the power of drawing them out, and facilitating their removal.

The tissue of the mammary gland was found on examination to be (as had been predicted) of a scirrhus nature. In various parts it was softened. The mischief had commenced in the centre, and had extended in the form of rays towards the circumference. The incisions were made in the sound parts.

Case 3.—M. Dupuytren extirpated a tumour, of the size of a large filbert, situated in the cellular tissue above the left mamma. The patient was thirty years of age. The operation was very simple; one incision sufficient to lay bare the tumour, which was then seized with the forceps and drawn outwards. A few strokes of the bistoury detached it. We notice this case as a proof of accurate diagnosis. Before the operation M. Dupuytren announced, that the tumour was of a fibrous nature, and consisted of two lobes; and every one might have convinced himself of the correctness of this opinion. It is to the precision of his knowledge of the pathological anatomy, that this professor frequently owes the accuracy of his diagnosis.

Within a month two other amputations of the breast were practised at the Hôtel Dieu, and both with success.

Excision of the Tonsils.

A young man, between twenty and thirty years of age, thin and lank, had been subject to repeated attacks of inflammation of the throat, in consequence of which the tonsils were enlarged to such a degree, as to interfere with deglutition, respiration, and articulation. They were seized, one after the other, with Museux's forceps, and excised with a bistoury guarded with linen till within about an inch of the point. Very little blood escaped. The tissue of the bodies removed was dense and resistant.

The operation was very simple; the patient was seated on a chair, with the arms and body enveloped in a towel. No instrument was employed to keep the mouth open. No accident followed the operation.

Tracheotomy.

A young woman, eighteen years of age, of a weak constitution, and with irregu-

lar menstruation, had suffered for a long time with a tumour in the right side of the neck, beneath the angle of the jaw. It was hard, and of a large size, projecting at least as much internally as to the exterior, rendering respiration and deglutition difficult, and causing lancinating pains to the patient. When she first came to the Hôtel Dieu, the nature of the pains, the peculiar character of the tumour, and the commencing deterioration of the health of the patient, induced M. Dupuytren to believe that the affection was of a cancerous nature. Its situation and depth rendered its extirpation difficult, if not impossible. Some palliatives were administered, and the young woman left the hospital. Four months afterwards she returned much worse. The tumour had acquired double its former volume, and a kind of indistinct fluctuation, or rather softening, was perceived towards its apex. The disease was pronounced, with still greater certainty than at first, to be cancerous and incurable.

The patient had become considerably emaciated; her complexion was greatly altered, and respiration and deglutition were now very difficult. Her state, for two months, grew worse and worse, until suffocation appeared at times so imminent, that M. Dupuytren recommended that recourse should be had to tracheotomy if a fit of a more violent and menacing nature should occur. "The patient," he observed, "is every instant exposed to perish from suffocation. By opening the trachea, the respiration will be rendered more free; and this unfortunate patient, who would have died at an earlier period in fearful agonies, will obtain a month longer of life, and probably a less cruel death."

A frightful suffocative fit having come on the day afterwards, tracheotomy was immediately performed by a dresser. The inferior part of the thyroid membrane, and two or three rings of the trachea were divided, and a gum-elastic canula was introduced into the wound. The respiration was re-established, and the patient was instantly relieved. She went through the month of life which M. Dupuytren had allotted her, in a tolerably calm manner. By means of a sound passed into the œsophagus, several drinks and some liquid food were administered. For a day or two she appeared better; but she quickly relapsed. The diarrhœa became more abundant; a violent cough came on; and in its paroxysms, she brought up a great quantity of serous pus, of a very unhealthy nature. From the dullness on percussion of the right side of the chest, M. Dupuytren considered that this matter came from a cavity in the right lung, towards its upper part, and in the neighbourhood of the bronchial tubes. The day before her death, a whitish exudation, forming a kind of false membrane, not organized, and but slightly adherent, covered the tongue, and the interior of the mouth. The same kind of ex-

udation was observed in the case of another patient, who died a few days before, from diffused phlegmonous inflammation of the arm.

On examination after death, the body was found to be in a state of extreme emaciation. The tumour when divided presented a cerebriiform appearance. A whitish milky fluid, a characteristic sign of carcinomatous degeneration, exuded, and could be taken up on the blade of the scalpel. The chest having been opened, the left lung appeared slightly gorged with blood. Some old cellular adhesions existed on the left side. The right lung was in a state of grey hepatization. A vast purulent cavity was formed in its inferior border, extending to the diaphragm*. It was empty; and had evidently furnished the pus which M. Dupuytren thought had come from the superior part of the lung. Some parts of the lung, less inflamed and engorged, floated when placed in water; the rest fell to the bottom. False membranes, recent and not yet organized, were found on this side of the chest.

—o—

To the Editor of the London Medical and Surgical Journal.

SIR—Will you have the goodness to grant insertion of the accompanying letter in your Journal of next Saturday, and oblige, Sir, your very obedient Servant,

W. KINGDON.

2, New Bank Buildings,
Oct. 26, 1835.

—

TO THE MEDICAL PROFESSION.

GENTLEMEN—Having been of late treated with injustice by the majority of the Council of the College of Surgeons, and having been taught that he who tacitly submits to injustice becomes an instrument to his own degradation, I take this, I believe the most proper method, to protest against the measure of exclusion that has been practised towards me. Thinking that such a body would not willingly treat any one with injustice, I suspected there must have been, unknown to me, some disparaging report abroad, and therefore addressed the President and Council to inquire if, to the belief of any of them, such report existed. After some time I received an answer avoiding the question, and thus in effect admitting that if they allowed me an unsullied reputation, they damnified their own conduct. On the same showing, however, their conduct was calculated to damnify my fair fame, more

* The purulent collection here spoken of had probably taken place, not in the substance of the lung, but between the layers of the pleura. According to the best pathologists, an abscess in the lung from pneumonia is a very rare occurrence.

valued and estimated by me, as more essential than life itself to the well-doing of myself and family.

Without power to question this conduct, shielded as it is by charter, granted we may presume by a gracious sovereign, for the benefit and not the oppression of his subjects, I still have the power, possessed by every English gentleman, to see that my reputation do not suffer by the selfish or partial conduct of others; and it is for this reason that I now address my professional brethren. After more than twenty years of public and private practice as a surgeon in London, I must be known to some of you, and I address you to entreat that if any of you know, or think you know, any thing disparaging to my character, you will have the goodness to inform me, and thus confer the greatest favour it is possible for man to confer on man; for I am conscious that any such disparagement need only be made known to be proved as resting on misapprehension or founded on falsehood.

Having avoided all ineligibility to a seat at the Council of my College, the exclusion would seem to imply that I have by some act, either professional or otherwise, rendered myself unfit for election.

Unless erroneous information respecting me, given to the Parliamentary Committee by the then President of the College (which he afterwards made all endeavours to correct, that gentlemanly feelings could prompt), has been deemed a sufficient cause to throw me out of my fair professional course, or unless my not having an interest in common with surgeons of hospitals, or a mind easily led to surrender its own views, and see things as others wish, be deemed a sufficient cause—and neither of these can be supposed to influence the minds of honourable men—I must remain under the stigma of exclusion for my own demerit, did I not make this appeal to my professional brethren, so as to make known to them that on the majority of the council rests the responsibility of having used their power unjustly. Such conduct needs only to be canvassed for the reprobation of the right-thinking, and fall on those who practise it; and I have felt it my duty to offer my character for the strictest investigation, in order that the majority of the Council may have the benefit, if any thing can be found against it, as an excuse for their unprofessional and unjust conduct. It is the conduct of such men, that drives the quiet and the peace-lovers to desire and enforce change. It is the conduct of such men that renders futile the best efforts of the honourable and the able to place the affairs of our country on a footing of fairness and stability.

I am Gentlemen, very faithfully yours,
2, New Bank Buildings, W. KINGDON.
Oct. 26, 1835.

The London Medical

AND

Surgical Journal.

Saturday, November 7th, 1835.

THE OLIGARCHY OF LINCOLN'S INN. ELIGIBLES AND INELIGIBLES.

IN a letter which appeared in last week's *Lancet*, and *Lizard*, but which arrived too late for insertion in our journal, Mr. W. Kingdon complains of having been passed over in the list of the "eligible" to the oligarchy of Lincoln's-Inn-Fields. Mr. Kingdon is an experienced and excellent surgeon, and a most respectable man, and as such he has a right to be considered eligible to any post of honour in the profession; but it is to us matter of simple astonishment how Mr. Kingdon can regard a seat among the oligarchs as a thing to be coveted. We solemnly declare that if we were practitioners of surgery, and were elected by the council of the London College of Surgeons, we should, without a moment's hesitation, decline that pretended honour, and real disgrace. Our answer would be "we never desire to sit in that council till we are called to it by the voice of a majority of the commonalty." The parable of the sour grapes cannot here be applied to us, since we are physicians, and have nothing to expect from the College.

We did indeed, when green and unsuspecting youths, possess ourselves of its diploma, of which circumstance we are heartily ashamed. We could divide, and go to buffets with ourselves, for having given two-and-twenty pounds sterling in exchange for the privilege of appending to our name M.R.C.S.L.—the which, being properly expanded, stands thus; M-cre, R-aw, C-ringing, S-tupid, L-ubbers—as we ingenuously confess we at that time were, for allowing ourselves to be taken in by such open and notorious rogues.

Mr. Kingdon has evidently formed a most erroneous estimate of the cha-

racter of the twenty-one. "Thinking," says he, "that such a body would not willingly treat any one with injustice, I suspected there must have been, unknown to me, some disparaging report abroad." Injustice! We wish the council were guilty of nothing worse than that; if so, they would merely be like other unprincipled men who have their own interests to serve: but they are obnoxious to much heavier charges. We say nothing of their thefts and breaches of trust, on which the history of the profession for the last thirty years has formed a running commentary, but we would direct attention to their Neronic tyranny and cruelty. Have they not aided and abetted the conspiracy of those wicked women, the odious hags of Blackfriars, to bedaub the profession with jalap, and to render it impossible for nine-tenths of its members to subsist, otherwise than by choking the public with the same unpalatable material? Have they not, thereupon, with the coolest and most deliberate malice, jibed at the deplorable condition of their brethren—exerted their influence with the public charities to exclude from the office of surgeon every body engaged in the practice of pharmacy—and declared for their part that they could by no means admit retail tradesmen into their honourable body? Have they not, in one word, done everything in their power to mar the interests and wound the feelings of the general practitioners of England? They have! This is more than injustice, it is fierce atrocious inhumanity! So much for the injustice of the oligarchs; but Mr. Kingdon suspected that there must have been some disparaging report abroad concerning him; his suspicions were just—he has the reputation of being an honest man—which is precisely the worst of all possible recommendations to the favour of the twenty-one. Let Mr. Kingdon and all other members of the profession rest assured that the men of Lincoln's Inn have only two

principles of election; *fellow-feeling* towards knaves, and *fear* of those who, from whatever cause, have risen to a dangerous eminence. If they see a man whom they believe to be altogether such as themselves, a man who is likely to go all lengths with them in oppressing, degrading, and insulting the commonalty, him will they joyfully elect; if they see a man whose powerful opposition, whether from good or bad motives, threatens to bring the edifice of their iniquity about their ears, him will they invite with the treacherous fawning of a well dissembled hatred: if they see a man whose distinguished talents and upright character give him a strong hold on the public esteem, him will they endeavour to conciliate, that their own dusky reputation may look bright in the sunshine of his deserved popularity—how else are such men as Sir C. Bell and Mr. Green, to be found among them? Our only wonder is, how individuals so respectable, can condescend to such society; let us hope they do so with a view of improving it if possible.

Mr. Kingdon may console himself with the reflection that there are scores of surgeons in London in the same predicament with himself, nay, the greater part of them in a worse, since Mr. Kingdon is only pronounced *individually* ineligible, while every surgeon in general practice is declared not only individually, but *generically* ineligible.

We hope that the exclusion which has so galled Mr. Kingdon, will have the effect of opening his eyes to the character of those whose confraternity he desired; we hope that he will add his highly respectable name to the list of avowed and active medical reformers—in which case we shall merely have to congratulate him heartily on his escape from the perils of evil communication.

And oh! ye men of Lincoln's Inn! our wise charming shall not be lost upon ye, deaf adders though ye be.

We will ring the changes in your ears unceasingly, till surgeons in general practice are made as eligible to the council as any others—till the profession are admitted to the unheard-of privilege of administering their own affairs with their own hands.

The chief objection urged by the oligarchs against admitting general practitioners to the council, is really most facetiously impudent; provoked as we are at it, we never can help laughing when it is mentioned. A general practitioner, say the senators, is a tradesman; he may become bankrupt—and then what becomes of the dignity of the council of which he is a member? Excellent! Do not the council know, and does not everybody know, that although surgery has long been raised to the rank of a profession in the eyes of the public, it still remains, in all its legal relations, a *trade*. Any one of the high and mighty men of Lincoln's Inn can, if he pleases, send in his bill as a tradesman, and enforce its payment; and any one of them may become a bankrupt just as readily as any apothecary in England. But we may have misunderstood them mayhap; they only mean to say that although they are tradesmen, they are in no danger of falling into embarrassed circumstances as long as they have the keeping of the College funds! We believe them; but for all that, they may be, and they are, bankrupts in the worst sense of the term—bankrupts in reputation. We advise them then at once to declare their moral insolvency; to render up everything—the building and library of the college to the members to whom they belong, and the museum to the nation whose trust has been betrayed: the twenty-one may then go freely forth like poor but honest men, with nothing left but their character—that they may very well be allowed to keep, for nobody will covet it.

ELECTION OF MEDICAL OFFICERS IN THE ROYAL HOSPITALS.

OUR readers will have perceived that we have looked with considerable interest on the late election of resident surgeon of Christ's Hospital. As the time for that election approached, we felt more and more confident that the governors would really and truly select the best fitted candidate, but we have been wofully disappointed. Against the gentleman who (we know to his own surprise and astonishment) has been elected to this office, we have, as we stated last week, nothing to record, except, that it is utterly impossible that for years, let him labour as he may, *he can be* so competent as the individual, whose indisputable talents, whose lengthened experience and reputation, brought him originally into the service of the hospital, at the solicitation of a special committee of the governors, who went to the ballot against him, and who obtained what would, under any other circumstances, appear almost a disgraceful minority of votes.

We do not here desire to advocate the cause of Mr. Plumbe, because we know full well that he can do it for himself; but we take the occasion as one on which we hope to sound the trumpet of alarm with effect amongst our professional brethren over the whole country.

By this act and deed of the governors of one of the first royal hospitals, they have boldly proclaimed that neither the advantages of peculiar fitness, of established reputation and experience, will avail anything. *They will have none but scions of their own stock; and competent or incompetent as these may be, it is quite clear to us, that opposition to them is vain and useless;* for the future, any attempt to contend with them, be the candidate whom he may, must most assuredly lay his account for at least a useless expenditure of time, and if he is fool enough, of money also.

Now, let us descend a little to particulars, by way of illustration. Christ's Hospital has for time immemorial been supplied, as regards medical officers, from the maternal fount of St. Bartholomew. An event occurs—a special committee of governors is appointed. Scores and scores of years have passed over the heads of these reverend governors, and yet no neglect detected, no abuse discovered;

nearly one fourth of the boys labouring under contagious disease in the mean time, and deprived of their education. Can it be a matter of surprise, that the governor who obtained that committee, and who of course became its chairman, should name it a committee to inquire into the efficiency of the medical establishment? It *was* so named, and the committee proceeded to their work. What did they do? They sought the first authorities on the class of diseases which had so impeded the vital objects of the charity—namely, education. They sought the counsel of gentlemen who had for years had medical charge of the largest public establishments for children in England, and they found these gentlemen unanimous in condemning the diet of Christ's Hospital; but they found their *own medical officers* assuring them that vegetables were not necessary to the health of the children—that dry bread contained vegetable matter enough for all the purposes of health of the children!! Laughing, as we do, at the absurdity of this position, we cannot help pitying its advocates, since the governors at large, without any other impulse we believe, than that given by Mr. Plumbe's denunciation of the diet "divested of vegetable matter in any form whatever (except bread)," as the primary and predisposing cause of almost all those diseases which infested the institution—directed in all manners and forms, a most liberal supply of vegetables.

Well, these measures were adopted, much to the annoyance, as it appears, of those who declared the absence of necessity for them. Nevertheless, the boys appear to have been exceedingly well satisfied, and most decidedly to have improved in their health.

It seems that we have before us an example of the truth of the old adage, that great effects arise from little things, for out of the investigation and the inquiries of the special committee alluded to, has arisen, 1st, the resignation of the physician in London, leading, it is perfectly true, to the appointment of a surgeon who held five different offices before; 2nd, to the resignation of the respected general practitioner at Hertford; 3rd, (and we have good authority for the statement), to the threatened resignation of the consulting surgeon in London; 4th, to the *abdication* of the treasurer, (and the term has not been

misapplied, for he has been as much a king at Christ's, as King Harrison has been at Guy's); 5th, the departure of the venerable apothecary in London.

Now, we will ask, if there were not something rotten in the state of Denmark, *could* all these things happen in the space of one short year?

However, we will leave that for the honest part of the governors of Christ's Hospital to consider: our business is with our professional brethren; we would really appeal to them, and we would say, why stand aloof and see these public appointments quietly bestowed on those who have no pretensions, except such as nepotism gives them—*why do the mass* of general practitioners succumb quietly to this system of tyranny over the mind? What do we see in the case before us? For time immemorial, Christ's Hospital has been supplied with medical officers from the adjoining sister institution, St. Bartholomew: the rule has never been broken within the memory of the present generation till now. Why is it broken now? We are able to solve the mystery. The people of St. Bartholomew's had three of their school in the field; those of St. Thomas' and Guy's, only one. Still the league was preserved intact and entire; they ran the race amongst themselves: no interloper, no pretender, on the loftier grounds of experience and acquirement, was to be listened to. The governors of Christ's Hospital *dared* not, in the face of the world, take from St. Bartholomew's a confidential medical attendant, with the fact before their eyes, that the teachers of that school had done, not good, but mischief, for years; but they did dare, despite the sacredness of their charge, to reject, perhaps, the only man who could have been of service to them in England, so far as regards this horrible pest of the institution, ringworm, and who was, moreover, recommended to them by more than ordinary experience in the diseases of children generally.

Now, our readers will say, what is the secret here? we will tell them. It is not that Mr. Plumbe's talents are doubted—it is not that any apprehensions are entertained by these *parents depute*, and guardians of Christ's Hospital children; it is not that they, the governors, believe that all *has really been done* which medical science affords the

means of: quite the contrary; Mr. Plumbe, it seems, having had the exceeding ill luck of being applied to by the special committee, as the fountain head of the best information they could get, is to be blamed because that special committee had, and professed no other object, than the correction of abuses. Mr. Plumbe too, if we are correctly informed, has sustained, willingly on his part we have no doubt, the stigma of a reformer in medical science, and that is enough to create enemies to him in all and every of the royal hospitals. What has happened in Mr. Plumbe's case as a surgeon, will most assuredly happen in the case of any physician who may think proper to become a candidate for office in any of the said royal institutions. Superior qualifications go for nothing with these gentlemen governors, possibly because they do not know how to estimate them, but more probably, because they look to their office and its solemn duties as mere means of serving their friends.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Cases of Erysipelas—Use of Nitrate of Silver.

GEORGE INNES, aged 31 (admitted Oct. 3rd, under Dr. Elliotson), a stable-man, of healthy appearance, but intemperate habits; he generally drinks gin and ale mixed. On Monday last he got very wet, and on Thursday, when he went out of doors, he felt chilly and weak: he then went home and took some brandy and water: next morning he found his face swelled and inflamed. He consulted a surgeon, who gave him some opening medicine, and ordered him to bathe his face all day with cold water. These means produced no relief. The greater part of the right cheek, a smaller part of the left, and the eyelids of both sides, are now affected with erysipelatous inflammation. It has extended also slightly to the forehead, and there is a little vesication on the nose. Complaints of smarting in the forehead and eyelids, but has not much pain elsewhere. No pain within the head, but he complains of giddiness; has not slept for two nights, in consequence, as he thinks, of pain in the eyelids. Great thirst; tongue rather white in the centre; no sickness or pain in the epigastrium. Bowels purged for the last five or six days without medicine; has had retching in the morning daily for the last six months; skin hot; pulse 92, soft; body tremulous, and has been so since last Monday.

Applicetur sol. argent. nitr. saturata faciei.

Oct. 4th. Feels much better; the pain of the application was severe for several hours, but since it ceased he has had no pain whatever. Passed a very good night. Pulse 80; tongue cleaner; talks rather wildly; forgets the time he has been in the hospital—thinks he has been in three or four days, until reminded of his error, when he remembers correctly.

5th. Erysipelas better; face much less swelled; pulse 80, soft; but he talks very incoherently. Complains of some giddiness, which he says he has long suffered under. Body rather tremulous; does not perspire.

Morph. mur. gr. ss. Extr. colocyuth, gr. xss.

6th. Talks very incoherently; body tremulous; squinting, and contraction of the pupils. Erysipelas better; pulse full and rapid, but soft; bowels confined.

Ol. croton, gut. jss.

7th. Still talks very rapidly; the squinting continues; bowels have been freely opened; was very restless all night. He appeared, on the whole, to be rather more tranquil to-day. Tongue dry and chapped.

8th. Much better to-day; is quite rational, and expresses regret for his former violence. Bowels open; pulse 72, moderate; tongue moist.

From this date he continued rapidly to improve, and was discharged cured, Oct. 20.

James Hetherington, aged 46, admitted Sept. 18th, under the same physician as the last case. On Monday last, felt a slight languor, to which he paid no attention; on the following day his memory became impaired, and his mind confused, so that he was unable to attend to his business. Frequent shiverings came on, and were succeeded by transient flushes of heat. He lost his appetite: the sight of food, or mention of it was disagreeable to him, and he felt a parching thirst. His bowels became relaxed, and the urine scanty and high-coloured. On Wednesday morning a redness and burning pain appeared in the nose, and spread rapidly over the face; the former symptoms then subsided, but the dislike to food, and diarrhoea remained. Yesterday he had slight headach. The present symptoms are, redness of the face, forehead, and upper and back part of the neck, disappearing on pressure, and instantly returning when pressure is removed; considerable tumefaction of the cheeks and eyelids, so that the eyes are half closed: burning heat over all these parts; the middle of each cheek is whitish, apparently owing to small vesicles: great thirst; slight headach; no appetite; tongue white and furred; tremor of the hands and general weakness; bowels relaxed; pulse 120, soft.

Applicetur sol. argenti nitratis saturata faciei.

Sept. 19. No longer feels any of the ori-

ginal burning pain, or even that caused by the caustic application, which at first was very severe. Bowels open once since his admission; thirst much diminished; pulse 90, soft; some excoriations on the cheeks and neck, from the solution Ung. zinci partibus excoriatis.

21. As there was some soreness and redness over the scalp, Mr. Taylor ordered the head to be shaved, and sol. arg. nitr. to be applied to it. The soreness in the face is now gone, except that caused by the application of the caustic. He talked wildly yesterday and to-day, and dressed himself three times to go out. He mutters incoherently about his business, and the money he loses by his illness. Thirst greater than at last report; tongue white; tremor of the hands; pulse 110, soft.

22. More quiet; no burning pain; some soreness from the caustic. Tongue white; thirst diminished; appetite a little better; bowels regular; pulse 85, soft.

24. The swelling in the head is much reduced—the cuticle is peeling off. Tongue nearly clean; no thirst; appetite returning; bowels open.

26. The cuticle covered with the nitr. arg. is fast coming away, and he feels quite well. Appetite pretty good; tongue moist; bowels open; pulse 84, soft.

Discharged cured October 3.

Joseph Morris, aged 53, (admitted Sept. 11th, under Dr. Elliotson), a man of intemperate habits. Had been working in a draught of air, and caught a severe cold. The parotid glands became hard and painful. On the 6th inst. his upper lip became red and painful, and the redness subsequently extended over the face, accompanied with a burning pain; small vesicles also appeared, which broke, and discharged a little fluid: he applied to a medical man, who, after bleeding him to lbj., advised him to go to an hospital. The inflammation now extends all over the face and forehead. Mr. Taylor applied a solution of nitr. arg. (gr. x. to ʒj aq.) to the affected parts, but they only darkened the skin. The tongue is furred, pulse 100, great thirst, no appetite; bowels opened by medicine.

Applicetur sol. nitr. arg. saturatæ partibus affectis.

Sept. 13. The face is now quite black from the effects of the nitr. argenti; pulse 95; face in a burning heat all night.

14. Face less painful; pulse 78, small and weak; bowels opened by medicine; tongue dry and furred.

15. Feels much better and less weak; tongue dry and furred; thirst continues; pulse 85.

17. Thirst much diminished; feels stronger, and the appetite is returning.

Discharged cured, Sept. 29th.

Matilda Scotlock, aged 27, admitted Oct. 2nd, under Dr. Elliotson. She caught cold from having had her feet wet, and was attacked with cold shiverings, which lasted the greater part of a day; the next morning she observed that her forehead was swollen, and felt tender; she had also headache. The next day the swelling and tenderness had extended down each side of her face accompanied with a dingy redness of the skin, and a strong sensation of heat; the entire scalp has now become affected, as also her ears, which are very painful, and discharge some serum: several bullæ have formed on the left cheek; the headache now is very slight. Previous to her admission she took some medicine, which acted very much on her bowels; she had also a lotion to apply to the parts affected, but she used it only once, on account of the severe pain and sensation of heat which it caused: her bowels are open; tongue white; appetite bad; pulse 80, and small. Abradatur capitis pillitium.

Applicetur sol. argenti nitr. saturata partibus affectis.

Oct. 6. The swelling and redness has not extended beyond the parts to which the lotion has been applied: she feels much better; the pain and heat in the affected parts have greatly diminished.

10. She washed off the lotion; the redness and swelling have declined, and she feels no pain or heat in the parts which were affected; her general health is good.

13. Her face is fast returning to its natural appearance, and her general health good.—Diætâ media.

17. All traces of her complaint have disappeared, and her face is now restored to its natural state.

Discharged cured, Oct. 20th.

—o—

Practical Observations on Midwifery. By William F. Montgomery, M.D., M.R.I. Professor of Midwifery to the King's College of Physicians in Ireland and Physician Accoucheur to Sir Patrick Dun's Hospital.

On some peculiar Forms of Relaxation of Uterine Tissue.—It is perhaps scarcely necessary to premise, that when the uterus expelled the product of conception at the period of its growth, a process of active contraction immediately commences, by which, assisted by absorption, the structure of the organ is gradually condensed and rendered compact, and its volume is speedily reduced to its original dimensions. Under such healthy and favourable exercise of the natural functions the blood-vessels which enter into and permeate in every direction the uterine structure, and which have been hitherto in a state of enlargement necessary for nutrition of the ovum, are effectually compressed, and their orifices internally sealed.

up, so that no injurious loss of blood takes place either at the time of delivery or subsequently. But unfortunately matters do not always proceed thus favourably, the uterus being liable, under certain circumstances, to fall into a state of atony and relaxation, which is occasionally productive of the most deplorable results,

Now there are two conditions of this accident peculiarly formidable: 1. As it occurs immediately after delivery. 2. At periods more remote from the time of child-birth, as after several hours or days. These two forms of the accident are, I believe, now so generally understood, and have been so accurately described by authors, that I do not propose here to offer any observations upon them, as the reader will find elsewhere a very full and satisfactory account of the subject, particularly in the treatises of Ramsbotham* and Ingleby†, to which, therefore, I beg to refer him. But there is another variety of uterine relaxation, of whose existence I have fully satisfied myself in many instances, though it has not, as far as I am aware, been described, or even noticed by any writer; the peculiarity of it being, that it continues in a chronic form, occurring most frequently after early abortions, sometimes after delivery at the full time, when there has been profuse hæmorrhage, and sometimes as the result of protracted or undue lactation. With regard to that form of it which follows early abortion, I should observe that it is not necessarily connected with any loss of blood during the miscarriage, as the cases to be detailed will show; but about the time that the patient is beginning to resume her ordinary occupations, and by taking more exercise, increases the rapidity and force of the circulation, she is unexpectedly seized with hæmorrhagic and leucorrhœal discharges, considerable in quantity, and of course quickly inducing great debility, and exciting painful and alarming apprehensions of the existence of some lurking malady. In general the patient experiences but little pain, most frequently none; but she feels an internal fullness, which appears to her to interfere with her passing water; she has a dull aching feel in the small of the back, and is constantly annoyed by a sensation of relaxation in the whole contents of the pelvis. If an examination is made, the vagina is found unusually unresisting and relaxed, and the os uteri gaping wide open, with its lips tumid, thickened, and projecting, but at the same time soft and flabby; the cervix is dilated, so that the natural tapering form of that part is gone, and the body of the uterus itself is felt enlarged and doughy when pressed by the point of the finger, which however does not give any pain whatever, the organ appearing

indeed quite insensible. This condition of the uterus may persist for many weeks, sometimes for months, being attended by various degrees of constitutional disturbance, as the discharges to which it gives rise may be so profuse as to endanger life, while at other times they are but slight, or appear only occasionally, and at length attract attention more by their long continuance, than from any great severity in the symptoms by which they are attended. The possibility of conception is by no means excluded during a moderate degree of this state of the uterus; indeed, on the contrary, my experience would lead me to say that it is very apt to occur under such circumstances; but if the tone of the uterus is not completely restored before the recurrence of pregnancy, abortion will almost inevitably happen, as in Cases III. and IV. This, as well as other points in this general description of the affection, will probably be best elucidated in the details of a few cases, which I shall endeavour to give as briefly as possible.

CASE I.—In July, 1830, I was called to see a lady at the north side of the city, who had just miscarried in the second month of gestation, with profuse hæmorrhage, by which she was much exhausted; the ovum had come away entire, and was about the size of a walnut, and I learned from her that she had miscarried twice already within the preceding six months; on this occasion she seemed to recover well, and was able to leave her bed in less than a week. I established a tonic system of treatment both in medicine and diet, but at the end of a month her strength had not returned, and she had never ceased to have vaginal discharges since the time of the abortion. Apprehensive that some portion of the decidua might be retained in the os uteri, I examined that part, and found it just in the state it had been a month before, gaping open, soft, relaxed, and flabby. I now strongly recommended her to go out of town, and take a house on the sea-shore for the purpose of bathing, leaving her husband behind. This was done; she continued to take small quantities of quinine and gentian with aromatic sulphuric acid, and bathed every day in the open sea until November, when she returned home completely re-established in health, and immediately afterwards conceived. She passed through her pregnancy without any tendency to abortion; and on the 6th of the following August* gave birth to a fine healthy child, which, by my advice, she attempted to nurse, and for the first time succeeded perfectly. She had previously had five children, and has had two since, which she also nursed, and is now in

* Ramsbotham's Practical Observations on Midwifery, Part 1. p. 186.

† Ingleby on Uterine Hæmorrhage, Chap. 22, 23, and 24.

* This lady told me on the 10th of December, that her confinement would take place on the 5th of August; she had a few pains on the 4th, and again on the 5th, and was delivered on the 6th.

better health than she had enjoyed for some years.

CASE II.—On the 29th of January, 1832, Mrs. V. sent for me in consequence of being, as she thought, threatened with abortion in the third month, having had a similar accident at the same period of gestation in the preceding June. She had now a good deal of fever about her, with some red and glairy discharge from the vagina, but no pain. On examination the os and cervix uteri were found in a natural and healthy state, and gave no indication of an impending abortion, which, however, took place on the night of the 30th, without either pain or hæmorrhage. While she was passing water she was conscious of something solid passing from her, but did not know she had miscarried until she saw the fœtus in the morning; it was of the third month, very much decomposed and altered in form, in consequence of which she became impressed with a very whimsical notion: she had been some time before greatly startled by a hatching hen which flew up into her face, and she now quite gravely asked me if I did not think what she had been delivered of was very like a chicken. She appeared to recover well, and at the end of a week was able to go about as usual. On the 29th of March, just two months after the miscarriage, she sent for me, and informed me that from the time of the abortion she had never been entirely free from vaginal discharge, which was occasionally accompanied with pains resembling slight after-pains; she was also annoyed with vesical irritation and dysuria, and was now much alarmed from an apprehension that she was labouring under gravel, or was threatened with cancer. On examination I found the uterus almost exactly in the state I had felt it two months before, after abortion had taken place; the os uteri gaping open to the size of a shilling, with its margins soft, relaxed, and puffy, but totally without tenderness on pressure. She was ordered the same tonics as in the former case, and to use free ablution to the lower part of the trunk with cold salt water, which was to be exchanged for the open sea bath as soon as the weather should permit. Under this treatment her health was perfectly re-established in about six weeks, during which time she lived *absque marito*. She conceived again towards the end of May, and was delivered on the 27th of February, 1833.

CASE III.—May 12, 1834, I was urgently requested to see a lady, sister to the patient, Case I., and mother of six or seven children, her family having become greatly alarmed for her safety, in consequence of profuse hæmorrhagic discharges. On seeing her I ascertained that a little more than three weeks previously she had miscarried early in the third month, with very little pain or hæmorrhage; she had apparently recovered well, so that at the end of a fortnight she went to church, but while there she felt

greatly fatigued, and was seized suddenly with a smart uterine hæmorrhage, in consequence of which she nearly fainted, and it was found necessary to have her conveyed home. She was visited by her medical attendant next day, who established a rigorous system of low diet, and water for drink, with full doses of laudanum, and the constant application of cloths wet with vinegar and water; in addition to which a bag of chalk, moistened with vinegar was introduced into the vagina. Under this plan, which had been pursued without intermission for a week, matters became much worse, and when I first saw the lady she was lying on a sofa in her bed-room, unable to move, and almost without pulse, the countenance blanched and ghastly, the whole body chilled, and shivering with cold, from being constantly soured in wet, and the mind depressed to the lowest degree of despair. On examination I found excessive relaxation of the vagina, the os uteri so open that it would readily have admitted the points of three fingers, its lips tumid, but soft and puffy; the body of the organ enlarged and doughy. I recommended the immediate removal of the wet cloths, and the application of dry and warm ones in their place, and a jar of warm water applied to the feet; a scruple of ergot of rye to be given infused in warm wine, the diet to be exchanged at once for jelly, good broths, chicken, and claret; tonics as in the former cases, and removal into the country as soon as it can be accomplished with safety. Under this system the lady was soon much better (as I was informed, for I saw her only once at that time), but she remained in town, and conceived again about the end of June, and again miscarried on the 15th of August, when I attended her; there was no hæmorrhage of any consequence, but the uterus was still evidently in a relaxed condition, which however I obviated by rest in the horizontal position for several days, allowing a generous diet, and administering tonics early. I also prevailed on her to leave town, and go to the sea-side, her husband remaining at home. She continued in the country till the beginning of winter, by which time she had completely recovered her health and strength. Soon after her return she conceived again, and on the 9th of the present month, September, was safely delivered of a daughter.

(To be concluded in our next.)

—o—

TRANSPPOSITION OF THE THORACIC AND ABDOMINAL ORGANS.

M. BALLY has recorded a singular case of this kind in a man, aged 25 years, who was under his care at La Pitié, for disease of the ileum. The most remarkable fact referrible to it is, that the man never experienced any inconvenience from the transposition of his organs during his life. This case is perhaps unique.

MEDICAL BOTANY.

PLATE VIII.—ATROPA BELLADONNA.

(DEADLY Nightshade.)

Off.—The leaf and root.

The deadly nightshade is a herbaceous perennial plant, which is indigenous both in mountainous and woody situations, and sometimes cultivated in gardens. The whole plant is poisonous, especially the root; and the berries, which ripen in September, from their beautiful appearance, like black cherries, have sometimes proved fatal to children. The symptoms excited are, dryness of the mouth, trembling of the tongue, very distressing thirst, difficulty of swallowing, fruitless efforts to vomit, and great anxiety about the præcordia. Extravagant delirium then comes on, followed by sopor. The pupil remains dilated, and is not sensible even to the stimulus of light. The face becomes tumid, and of a dark red colour. The jaws are sometimes locked. Symptoms of irritation are rare, and never severe, but the narcotic symptoms last for several days. Fatal cases are uncommon. The body in such cases soon putrifies, swells, and becomes marked with livid spots; blood flows from the nose, mouth, and ears, and the stench is insufferable. On dissection the blood is found to be fluid, the intestines are inflated and inflamed, or eroded and gangrenous. The best method of cure is to excite vomiting as soon as possible, by emetics, and tickling the fauces; to evacuate the bowels by purgatives and glysters; and to give largely, vinegar, honey, milk, and oil. In some children who recovered by this treatment, the delirium was succeeded by a profound sopor, accompanied with subsultus tendinum; the face and hands became pale and cold, and the pulse small, hard, and quick. Their recovery was slow, and the blindness continued for a considerable time, but at last went off.

Medical Use.—This virulent poison, under proper management, may become an excellent remedy. Besides its narcotic power, it promotes all the excretions; but its exhibition requires the greatest caution; for it is apt, when continued for any length of time, even in small doses, to cause dryness and tension of the throat and neighbouring parts, vertigo, dimness of sight, and even temporary blindness. When any of these symptoms occur, its use must be suspended for some time, and afterwards resumed in smaller doses.

SOLIDIFICATION OF CARBONIC ACID GAS.

M. THILORIER has transmitted a letter to the Académie des Sciences, in which he declares that he has reduced carbonic acid gas to a state of solidification, and proposed to liquefy it before the Academy.

STATISTICS OF THE HOSPITALS OF PARIS.

In 1833, individuals were admitted 65,938
In the infirmaries and asylums . 12,757
In foundling hospitals 21,351
In the orphan asylums 1,539
Into other institutions 72,746

The sojourn of the patients in the hospitals was as follows:—At the Cochin and Hôtel Dieu 19 days, at Charité and Pitié 21, at Necker 23, St. Anthony 27, Beaujon 29, Maternity 17, Maison de Sante 24, St. Louis 37, Enfants-malades 41, Veneréal 48; on an average 23.51.

The foundling infants in 1833, were 4,803; in 1832, 4,982; in 1831, 5,667.

HONOUR CONFERRED ON M. GAMA.

THE king of Sweden has conferred the honour of Knight of the Order of Wasa on M. Gama, surgeon in chief of Val de Grâce. The French surgeon had extracted a ball from the neck of his Majesty, when Prince de Ponto Corvo.

PROVOKED ABORTION IN RETROVERSION OF THE UTERUS.

M. ROUX informed the Académie de Médecine on the 18th of October last, that the surgeon-in-chief of the hospital at Amsterdam had shewn a woman four months pregnant, who suffered from retroversion of the uterus. The uterine neck compressed the bladder, and caused complete retention of urine, while the fundus of the organ was distinctly felt in the sacrum. Every means failed, and the symptoms became alarming. The surgeon introduced a piece of sponge into the cervix uteri, which, in the course of the day, induced abortion, and all the symptoms assumed a favourable aspect.

NATURALIZATION OF HAHNEMANN IN PARIS.

THE French government has authorized Dr. Hahnemann to practise in Paris, but it appears that the admiration of his Parisian disciples has diminished since he has become their rival. The learned Doctor has failed to be considered a prophet in his own country; and his disciples in London are now seldom heard of, even among the nobility, their patrons, and supporters.

THE PARIS AND LONDON PHARMACOPEIAS.

THE commission appointed in Paris to revise the pharmacopœia are the ablest professors, among whom are MM. Orfila, Andral, junior; Richard, Bussy, Caventon, Robiquet, Pelletier, Souberan, and Royer Collard. The London College has appointed a committee, and transferred the chemical part to a lecturer on chemistry who is not a physician. A comparison between both works cannot fail to be interesting to our readers.

London Medical and Surgical Journal.

No. 198.

SATURDAY, NOVEMBER 14, 1835.

Vol. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXII.

*Prognosis of Gastro-Enteritis.—History of the
Origin of the Broussaisian Ideas of Fever.*

A FEW words remain to be said on the subject of fevers. Whenever the phenomena of a febrile state proceed from one determinate point, they cannot certainly be regarded as effects of a general affection of the fluids, or as essential fevers. The only affections that would have any right to retain this title are those from the irritation or absorption of a poison—be it virus or miasm—such as small pox, measles, or plague, and, in some cases, yellow fever, typhus, &c. But you must recollect what I stated in my preliminaries. Whatever the poison may be that has been introduced into the body, the disease cannot consist in an affection of the fluids. So long as they alone are affected, you have no signs of it. He who does not suffer from, or whose health is not deranged by the absorption of a virus, absorbs it as well as he who does suffer from it. You go into a ward of small-pox patients where you are imbued with the miasms, but you do not fall sick: whilst your companion does fall sick if he be predisposed. You may say that the blood in your vessels has not suffered from these miasms, whereas that of your friend has been thereby altered. But no analysis proves this difference; and as regards him or you who is attacked, you will always find that the disease takes a start from some one point or organ, as in common gastro-enteritis; so that the absorbed virus, in this case, does not produce a general disease, and the laws that bear upon the reputedly non-poisonous inflammations are also here observed. If you tell me of experiments in which a poison, such as sanies, is introduced into the body of an animal, by injection into the vessels, by inoculation,

or by swallowing, I make a similar answer; the affection is not general, and there is always one primarily disturbed organ: the animal vomits, has mucous and bilious dejections, abdominal pains, in short, a gastro-enteritis. He is not uniformly and generally affected; all that you can say is that the blood has been the vehicle of the morbid cause.

This explanation made me return to the history of gastro-enteritis and enter upon the prognosis. Its gravity depends on several points, on the individual predisposition, on the age, on the degree of irritability, &c. Let us examine these various points.

On the score of predisposition, when gastro-enteritis breaks out in an individual already affected with chronic gastritis which he bore about him—and there are many in this case—it is necessarily more serious than in others not so affected. It will be more obstinate, and will not yield to the abortive measures which succeed in twenty others beside him. You should therefore make yourself acquainted with his previous mode of life, whether he has been intemperate, whether he has had several attacks of gastritis that were not completely cured, and especially whether he had not already begun to decay. In such a case, you must expect great difficulties: the least that can happen is the prolongation of the disease. If the patient has previously been affected in the middle and lower portion of the digestive canal, as evidenced by colics, meteorismus, and diarrhoea, you must expect a terrible disease; experience proves that, with similar antecedents, the phlegmasia is already considerably advanced at the time of the outbreak of the acute stage. Unfortunately we have more frequent opportunities of verifying this fact in our military hospitals than elsewhere, because soldiers, more familiarized as they are to the idea of death, and too much given to imagine that they will remain infirm and valetudinarian, and that such a state of life is not worth preserving, readily commit suicide. Only yesterday, at Val-de-Grâce, a case of this kind occurred: the patient killed himself. He had had symptoms of bronchitis,

which we had got rid of, and symptoms of gastro-enteritis that were already considerably reduced, together with some cerebral phenomena. We found in his body the phlegmasia that was being obliterated in the recently inflamed points, and that had produced induration, and threatening or already commenced disorganization in those where it had existed for a longer time. If the patients with this predisposition are aged, you have more to fear, because they bear phlegmasiæ worse than young subjects. To make a vividly acute disease in old men, a considerable quantity of stimulus must have been administered: they often have far advanced disorganizations even before the explosion of the disease. Do not, however, imagine that all men, young or old, who have these chronic gastrites preceding acute gastro-enteritis, die, or are even beyond a radical cure. On the contrary, it not unfrequently happens that they are cured at once and by the same remedies of their old and their recent disease, and are better than they were previous to the latter. Persons having gastro-duodenitis with turgid liver, are more especially instances of this: and the ancients who observed this, though less frequently than modern physiologists do, inasmuch as their treatment was inferior to ours, said that fever overcame obstacles and resolved obstructions. Boerrhaave, Sydenham, Hoffmann, Van Swieten, and others, held this opinion, and even went so far as to excite the fever when it was not sufficiently strong.

As regards age, acute gastro-enteritis is less frequent in old than in young persons, and the chronic kind more common. It has been said that dothinentery is never met with beyond the fortieth year: but such is not the case. True, that disease is less frequent in advanced age than at other periods, but this is owing to the weaker affectibility of the glandular, secretory, and follicular systems at that age. Yet if you go to the Salpêtrière, you will meet with a tolerably large number of adynamic fevers among the old men. Somebody has written a work on the dothinentery of young people, commissionaires, and water-carriers: let him write another one on that of old men, and he will see whether the disease is not common with them and young men, and whether their follicles do not become diseased. They certainly will not be so as frequently, for the simple reason, that old men commonly carry about with them old phlegmasiæ of the stomach, duodenum, and liver, and that when gastro-enteritis seizes on them, it predominates in those parts, makes rapid progress, acts upon the brain, and kills them before it has had time to reach the lower part of the digestive canal.

In children gastro-enteritis is serious. At that age, as well as in old age, it is characterized by the facility and rapidity of cerebral congestions: hence it was that Pinel

took his model of his cerebral fever from children and old persons. This peculiarity does not exclude the possibility of the same phenomena in young and adult individuals, only they are more rare in the latter. After a few days, and often a few hours, of gastro-enteritis, children quickly fall into a state of cerebral congestion, their diseases are rapid in progress, and the danger comes less from the digestive canal than the head. In old persons it more especially comes from the digestive canal, and in adults from both sources.

According to the seasons your prognosis will differ. The gastro-enteritis of the winter, of the close of autumn, and the beginning of spring, of the variable seasons in short, are more serious, because they are very frequently complicated with bronchitis and pulmonary congestions. Laennec judiciously remarks that catarrh almost always accompanies intense fever: this is easily explained: the current of the blood cannot be accelerated without the transmission of a greater mass of blood through the lungs, and at the same time an increase of the bronchial secretions. This augmentation is more or less marked, according to the constitution of individuals: fat, plethoric persons, with voluminous hearts, and habitually constricted respiration, will never have a gastro-enteritis of any intensity, without a copious catarrhal secretion: then, dry and nervous individuals are less subject to it. In the middle of summer, and in hot latitudes, this bronchitis is sometimes dry; in winter they are mucous and catarrhal to the greatest degree, and almost anything will cause a pulmonary congestion to ensue. If both diseases have co-existed from the onset, this conversion of catarrh into peripneumony occurs towards the close, and gives rise to the black induration, of which a bastard peripneumony has been made, and which some have more especially attributed to the stasis of the blood; but if you examine both sides of the lungs, you will find the induration neither equal nor uniform in them.

Aneurismatic disposition of the heart, which leads to these complications and thereby renders gastro-enteritis more serious, is met with in very many men, who originally have a heart of a size disproportionate with their stature, and is seen more in cities than in the country and mountains where the voluntary muscles are more developed. In cool and uncertain climates, where strong passions as well as catarrhs are rife, a twentieth part of the population is often affected with this hypertrophy of the heart. In fine, whether this disposition be innate or acquired, those having it have the catarrhal symptoms more decidedly, and are more subject to difficult breathing and peripneumony than others.

Regard must be paid to the manner in which the disease commenced and has been

treated. If it has been neglected, badly managed, or exasperated, it will of necessity be more serious. In the garrison of Paris we diminish the intensity of gastro-enteritis by issuing orders of the day by which patients are obliged to be brought to us in a stage of the disease that is more tractable, and in this manner we prove the efficacy of our means, and the power of our art.

Regard must be paid to the moral state and characteristics. Individuals whose life is a series of sorrows and vexations, or who have overworked the head, when once the fire is lighted up in the system, are liable to have it propagated to the organ that happens to be the most inflammable, and this, in them, is the brain. The pusillanimous have more serious symptoms, both from the gastro-enteritis and from the phlegmasia, that may be superadded. In this matter there are two divisions of patients, the timid and the courageous. The latter are able to recover from worse conditions than the former: I wish to verify this fact by phrenology, or, if you like it better, verify phrenology by this fact, and I observed that the cerebral organ, or region of the head corresponding to courage, was more developed in the men who exhibited the most resolution and coolness in their diseases.

Regard must be paid to the intensity of the circulatory and nervous phenomena: the more rapid the circulation the more serious the disease. Those subjects, however, must be excepted, in whom the rapidity of circulation is naturally greater. They are certainly more inflammatory, and have more violent gastro-enteritis; but the danger is not so assuredly measured by the pulse in them as in others: at least it is certain that persons with a feeble heart and slow pulse are more easily cured. Generally speaking, the frequency of the pulse should be the measure of the intensity and extent of the disease. As to the nervous symptoms, they may be observed from the onset: the patients lose courage, and have the presentiment of a serious disorder, repugnance to engage in serious affairs, and tendency to stupor when not in pain: these symptoms announce an affection of the nervous system, consequent on gastro-enteritis, and this is easily proved by applying a few leeches over the epigastrium, for after such application they disappear. They are not, however, always so easily dissipated, but exhibit great intensity in two principal circumstances: in that where the brain, being predisposed to inflammation, encephalitis becomes predominant, constituting the ataxic form: and in that where the disorganizing inflammation of the mucous membrane of the digestive canal threatens, or is already going on, constituting the adynamic form. This disorganization once consummated, the cerebral functions are irrecoverably lost—nothing can re-establish them: in vain you multiply your bleedings, se-

tons, moxas, &c., the patient dies. There is no exception to this rule; and a consequence of it is, that the adynamic state and the stupor are exclusively owing to the inflammation and alterations of the digestive mucous membrane. In fact, take a febrile disease that is not produced by gastro-enteritis, a primary peripneumony for instance, and you see it not. If this peripneumony be complicated with gastritis you will have ataxic symptoms, without those of stupor and insensibility: if it be at the same time complicated with enteritis, you will have the latter alternating with the former, and accompanied or not with tumefaction of the intestinal mucous follicles. More than this; if after a certain time the stomach recovers and the inflammation becomes more concentrated in the lower region until disorganization ensues, the patient may survive fifteen, twenty, or thirty days without stupor or delirium, without the stupid look that characterizes the disease, in short, with adynamic and ataxic symptoms. In the chronic state the same is observed when that state goes on to disorganization of the mucous membrane. Thus in both cases you have in the obstinacy of the nervous phenomena the proof that a serious inroad has been made in the mucous membrane of the digestive canal; nor is it necessary that the patient should vomit, that he should have pain of the epigastrium, hiccough, sensibility of the belly, &c.; all these symptoms may be altogether wanting, or have disappeared after existing. The stomach, thinned and exhausted, no longer re-acts and allows torrents of fluid to pass through it; while if, on the contrary, it recovers itself, you see the stupor disappear, the eyes become moist, the complexion clear, &c. Not that some slight febrile movements may still appear: but you have no more stupor or adynamic intoxication, or they are only slight and temporary. Such, then, are the nervous and circulatory symptoms that give the measure of the irritation and extent of the inflammation in a more certain manner than some others of which I have still to speak.

Pain on pressure shews that the disease is violent; but we must not think to measure the intensity by this sign: for if it exists in some individuals, it is wanting in many others: nothing is less trustworthy: the stomach and intestines may be in a frightful state of disorganization without any pain being exhibited. Indeed, the intestines are rarely painful in persons that have been submitted to a negative regimen and mild drinks: their sensibility is scarcely ever exalted but in those who have been stimulated.

Meteorismus is always a disastrous sign, and a proof that the small intestines are involved in the disease. The addition of "diarrhoea announces that the lower portion of the digestive canal is affected. When it

supervenes at the commencement of the disease it is not dangerous: at the end it is considerably so, particularly if it persists for two or three days: it is a proof of disorganization in the ileo-cæcal region.

The symptoms of danger are moreover always in proportion with the multiplicity of the seats of inflammation. If with the signs of gastro-enteritis you have those of cystitis, carditis, with unyielding arteries and cardiac palpitations, they constitute very untoward symptoms. An irregular and intermittent pulse is a dangerous sign.

The ataxy and adynamy of the early days of the disease are of slight consequence, especially when they can be attributed to congestion of the digestive mucous membrane; but they become more and more so after eight or ten days, unless they are owing to some imprudence that may be easily obviated; a spoonful of wine, or even of soup, is sufficient to renew them, as well as the diarrhœa and the increased pulse.

The early appearance of eschars indicate a deep lesion of the digestive organs. Attacks of erysipelas are advantageous if they diminish the fever, dangerous if they augment it. Parotid swelling is no sign of malignity, and is not dangerous, except by leading to cerebral congestions; they are of less import the earlier in the disease they appear, because at that period the subject is more fresh, and is a better object for antiphlogistic treatment.

Proceeding to the signs of a favourable prognosis, we find that when the nervous phenomena yield to antiphlogistics, and do not continue longer than two or three days, it is a good omen; when the pulse, from being contracted, fills out and remains so, you may have very good hope; when the stupor, sordes, subsultus, and low delirium cease, and at the same time the appetite re-appears, it is fortunate. But be not too confident, and do not pronounce the patient to be past all danger, for there may possibly may be a circumscribed but serious disorganization in the small intestines, which causing perforation, may end in a fatal peritonitis. Avoid, therefore, any positive prognosis or sweeping declaration: you can only hope. To be certain of success the frequency of the pulse must also diminish: for it sometimes keeps up notwithstanding the return of appetite, the re-establishment of the natural facial expression, the renewed moisture of the eyes, the clean, moist tongue, &c. As long as it continues you can answer for nothing; the smallest excess, the slightest error, may renew the disease, cause it to reach the upper portion, attack the nervous system, perforate the intestine, or proceed to the lungs: be therefore ever on your guard. When the frequency of the pulse begins to diminish the patient gradually recovers, provided he takes proper care: when it falls from five to ten beats in

twenty-four hours, he may, on the same condition, be considered out of all harm.

When patients sink in relapse we commonly find ulcers entirely or partially cicatrized, others with shrunk edges, others in which they are rugous, hard, and elevated, and others, again, that have perforated the intestinal coats and given origin to peritoneal inflammation—which, however, may exist without such perforation.

The fæces will recover of themselves, and when it so happens it is a favourable circumstance; there may be one or two loose motions, but if they subsequently become figured, convalescence is certain.

Treatment of Gastro-enteritis.—First of all, the disease should be taken from its onset, and it should be borne in mind that every gastro-intestinal irritation may become a gastro-enteritis at any age, though the disease has existed several times before. With this idea uppermost, you will have in view the distinction of the phlegmasia of the digestive canal, commencing with gastric disturbance, and announced by foul mouth, headach, lassitude of the limbs, nausea, shivering and heat, variable sensibility of the stomach, &c. These symptoms, which may be the prodroma of gastro-enteritis if not prevented from running through its stages, may also not bear that reference to it if it be arrested. Only imagine the position of a man who collects observations; he takes a certain number of them, ten, or fifty, or eighty, that have not been arrested at the onset: he relates the symptoms of the onset, and tells you these are the prodroma, and he then describes the disease itself; as if it were not always the same subject, varying only in aspect and form, just as an adult is only a child in a state of full development. Of these eighty prodroma, sixty at least might have been cured, and would only have been the first degree of arrested gastro-enteritis, had they been treated at an early period. This is the question stated. I think that long ago I cleared it of all the sophisms by which some desired it should be obscured. Those who have attentively observed these prodroma, have viewed them as I have done, whenever they called in the aid of their conscience as well as of their reason—I say of their conscience, for this is necessary in medicine, and unfortunately proves that all men are not sufficiently provided with it. It is a fundamental faculty that needs considerable cultivation.

In what are called its prodroma then, gastro-enteritis must be arrested, and the most efficacious means of this end, consists in local bleedings, leeches or cupping, over the epigastrium, demulcent poultices, abstinence, and mild drinks. This treatment most assuredly puts a stop to three fourths of acute gastro-enteritis. Yet some are cured by a different treatment, by an emetic for instance. This emetic, which I suppose to be tartarized antimony, excites the sto-

mach, and provokes copious evacuations. Now, all evacuations are debilitating and even antiphlogistic, when the diseased has not been too much stimulated in producing them. But the digestive canal, and the stomach particularly, is a highly sympathising organ, which communicates its irritation to the secretory organs, and gets rid of it by abundant secretions of bile, of pancreatic fluid and mucosities, and at the same time, by the diluents with which the administration of emetics is accompanied; so that their phlogosing action may be compensated and neutralized by these evacuations and dilutions; and so true is this, that when the emetic is not followed by copious evacuation, it irritates, even in the peripneumony in which it is given, and when the stomach is not at all very slightly affected. Besides, it must be remarked, that in some persons the secretory organs respond more readily than in others to the stimulus of tartar-emetic. If you hit upon one of such persons, it is very possible that, after a bleeding, an emetic puts a stop to the gastro-enteritis. But because this happens occasionally, you must by no means conclude that it is a certain remedy: so far is it from being so, that in the great majority of cases—about seven eighths—the disease, after being diminished for a few hours, is renewed in intensity. When I was in the habit of treating according to the *Nosographie philosophique*, that is, with tartar-emetic, I almost invariably found nervous pneumonia supervene the following day. So accustomed were my colleagues and myself to this, that when we saw a patient with incipient gastro-enteritis, being treated with an emetic, we said, “that man has a gastric disturbance to day, and to-morrow he will be in a state of adynamy;” it scarcely ever failed to be the case, and then the disease went on rapidly, in consequence of which I abandoned this kind of treatment. For a long time I did not apply leeches, because I had no precise idea of phlegmasia and its peculiar actions, that is to say, its tendency to extension in the digestive canal, and to propagation in the system at large: at that time I thought of little else but bilious or gastric fever. However, by giving up emetics and keeping to emollients, I diminished the number of adynamic fevers, which are now called typhoid or dothinentery. When patients in this condition were brought to me, I no longer dared to give them bark, camphor, snake-root, &c.; and confined myself to acid, slightly vinous beverage; and I cured a good number with this *limonade*. At length, as the inspection of bodies always discovered to me inflammations in the digestive canal, doubts arose in my mind, and I said to myself, “these inflammations are affirmed to be the effect of the disease, and no attention is to be paid to them—suppose I reverse the proposition!”

I was in this state of perplexity when I

was left, in Spain, with a great number of patients, without resources, and without medicines, having nothing but vinegar and water. I gave these in mixture to my patients, some of whom, that had ataxic symptoms, were better next day, and improved daily: it cured several of them. A revolution then took place in my ideas, such as is perhaps now going on in yours, and I felt that the time for a revision of what I had learned was arrived. This I undertook in 1814, on my return to France, when I found myself, as it were, forced to commence lecturing, in order the better to arrange the truths which as yet I had only a confused conviction of. I began by asking myself, and many of my then pupils, the majority of whom are still living, whether the supposed essential fevers might not be phlegmasia, and ought not to be treated as such. We began the reform of the treatment. We observed that many gastro-enterites, after having at first gone on well, suddenly became worse; we wished to ascertain the cause of this, and by renewed attention, we at length discovered that the patients had procured either some wine or soup, or boiled meat, &c. I caused these patients to be placed in a ward where they could hold no communion from without, and had them strictly watched. This threw fresh daylight on our views: we ascertained that the least thing was sufficient to reproduce a declining gastro-enteritis, and that the lightest aliment, or the smallest dose of a stimulating medicine, caused the return of the ataxic symptoms. Our theory was then established.

I am not the only one that effected this revolution in science. I was encouraged and seconded by my fellow labourers, of that period, who are now eminent physicians. It was not without difficulty and efforts, of which you can form no idea, that I tore myself from my former notions. Those who would bring you into the same state of embarrassment have themselves never been in it, or are so organized as to live tranquilly in error.

From this date then, the method of treating gastro-enteritis was definitively fixed in the following manner, and is the method that I follow to this day.

—o—

A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By William Stoker, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

(Continued from page 460.)

[The following paragraph was accidentally omitted last week.

The first fever hospital in Dublin was opened in Cork-street, 1803, and it was free

to the five adjoining parishes. In this year 415 patients were admitted, and of these 29 died; mortality 1 in 15. In 1805, 1024 were admitted, and the deaths were 67; about 1 in 15. In 1806, 1261 admitted, deaths 103; 1 in 12. In 1807, 1100 admitted, deaths 92; 1 in 11. In 1808, 1071 admitted, deaths 94; 1 in 11. In 1809, 1051 admitted, deaths 83; 1 in 12].

Period from 1817 to 1834.—Increase of disease and famine, simultaneous, and equally prevalent over Ireland in 1817, 1818, and 1819.—Type till 1822, the same as in the preceding years of the 19th; and from the history left by others, as in the corresponding years of the 18th century. The cases being, until 1822, febrile—sometimes symptomatic of inflammation, at others proved by morbid changes, in both fluids and solids, before and after death, to be wholly functional or idiopathic.—In 1823, 1824, and 1825, pestilence followed the loss of trade and the destitution of the poor.—Still more remarkably in 1830, 31, 2, 3, 4, and 5, an epidemic constitution of the air contributed to its malignity.—Then not only the evident distinction between symptomatic and idiopathic fever, and between fever and typhus was further exemplified; but the violent transition of typhus to epidemic cholera was first observed. On all these occasions corresponding changes in the external characters of the vital fluid, identified the prevailing distempers with the pest of the blood, as described in sacred history.

THE commencement of the period embraced in the second section, was as much distinguished by sudden and rapid growth of febrile disease, as that of the first was by its rise. Besides the miseries of famine, which succeeded the failure or destruction of crops in 1816, were simultaneous and commensurate with the sudden increase of fever in 1817 and 1818. But the growth of disease was not nearly so rapid in the metropolis as in the other parts of Ireland, where famine was not so effectually opposed by a liberal supply of food, fuel, and other necessities of life. These coincidences must have afforded valuable instruction to those entrusted with devising preventive measures, had not the preconceived opinions of the *ultra-contagionists* fatally misled them*. The same prejudice, however, still, unfortunately continued, notwithstanding that in each successive year since, other concurring and more evident causes occurred, such as heat and cold not alternating as before with summer and winter; the unprecedented privations of the working classes, and total loss of trade. The latter too became more and more manifest as the chief concurring

causes; whilst the separate agency of contagion, according to any laws laid down by its own advocates, became more difficult to be identified. Certainly it never was proved wholly independent of other more evident causes*.

Famine being, in the year 1817, for the reasons assigned, less productive of disease in Dublin than in the rest of Ireland, no additional fever hospitals were erected there. The admissions, therefore, into the primitive one, still afforded, as suggested in some of my annual reports, a tolerably accurate scale for measuring the increase of disease in this city. Moreover it likewise assisted in showing the relative mortality compared with 1816, the preceding year. These facts may be seen in the annexed table.

Years.	Admitted.	Died.	Average mortality.
1816	2703	173	1 in 15
1817	3682	231	1 in 16

These results, if duly examined and compared with the previous statements from the annals of the Cork-street hospital, are quite conclusive as to the superiority of supplying the poor with the necessities of life, which was adopted in Dublin, during the first three quarters of 1817. Surely such facts are well deserving of the attentive consideration of political economists. It appears, moreover, that though this increase of disease in Dublin, in 1817, compared with other parts of the kingdom, or with 1816, which was a remarkably healthful year throughout Europe, was slight, yet compared with 1815, when the previously tardy advance of disease was opposed by the complex apparatus provided for checking contagion, there was an actual diminution. There was, therefore, a much greater number of patients in the Irish metropolis in 1815, when the most extensive apparatus ever provided against contagion, was in full operation, than in 1817. But it was contemplated, in the latter years, only by the advocates of these measures, that a new and specific contagion had been imported, although great superiority of the means employed in the first three quarters of 1817 over the anti-contagious apparatus, and over the principles of its adoption, was rendered still more manifest. The very great importance of the illustration afforded by the relative increase of disease in Dublin, and in other parts of Ireland, from 1815 to 1817, under opposite modes of practice, will plead for dwelling so long on it. The subject demands much more space than can be given to it on the present occasion. A retrospect, however, of these events in 1817 and 18, may be found in the reports for 1820, 21, 23, and 28, and

* Medical Reports for the years 1817, 18, 19, 20, 23, and 28.

* See Dr. Haygarth's Letter to Dr. Percival, in 1800, and Dr. Stokes' Essay on Contagion, 1819.

are epitomized in the following table, which includes the years from 1817 to 1828.

Years.	Admissions.	Deaths.	Average mortality
1817	3682	231	1 in 15*
1818	7608	258	1 in 30†
1819	3873	224	1 in 17‡
1820	2974	203	1 in 14§
1821	2973	246	1 in 12
1822	2307	137	1 in 16¶
Total from 1803	46361	2869	1 in 16**
1823	2668	241	1 in 11††
1824	4599	327	1 in 12‡‡
1825	3878	381	1 in 10§§
Total 3 years	11145	949	1 in 11
1826	10882	386	1 in 28¶¶
1827	6544	344	1 in 19***
1828	2964	193	1 in 15†††

The average mortality in 1817, became somewhat less than in the preceding year. In both, however, the same principles and practice were pursued, and in the same forms of disease as in 1810, when the first remarkable evidence of a tendency towards

* Famine stayed in the city by supply of food; raged in other parts of Ireland.

† Many other fever hospitals established in Dublin, and received vast numbers. Actual mortality dreadful.

‡ These admissions into the Cork Street hospital, and deaths, no longer measure the increase of disease in Dublin.

§ Contagion, famine, malaria (vide report 1820, 21), manifest relative agency.

|| Diseases more typhoid. See report for 1820, 21.

¶ Decline of disease generally over Ireland, as happened in 1816, before increase of 1817.

** Compare the mortality of this with that of the pest of the blood, in successive years it prevailed.

†† Pest of the blood, supervened on influenza. See 2nd part Pat. Obs.

‡‡ All diseases, medical and surgical, affected by the pestilence. See Med. Rep.

§§ Besides the peculiar characteristics of the blood, dropsy and spurious phthisis followed cases of the pestilence.

||| The pest of the blood, epizootic and epidemic. Its symptoms, asphyxia, sudden death, coldness, ecchymoses.

¶¶ The mortality from the pestilence of 1823 was truly awful this year, though the average mortality in hospitals was very small, from the numbers in want of trade crowding them, in famine, not disease.

*** The same observations applicable to 1826 and 27.

††† See report for 1828; the decline of numbers, but increased mortality from the pest of 1823, sudden deaths, phthisis, and dropsy frequent.

pestilence in the prevailing epidemic, was exhibited remarkably in the morbid appearances of the blood, and by corresponding functional derangement. Then, too, in some cases, coagulated and sizzly blood distinguished the increased action of inflammation; and in other cases broken down, dark-coloured blood, as constantly denoted typhoid debility in whatever stage it was observed. (See Medical Reports for 1820 and 21).

In 1818, famine-fever uniting with the pestilential disease, which was the comparatively slow growth of preceding years, the number of the sick in Dublin was frightfully increased, and though other large institutions were erected in the different quarters of Dublin, so that 2,000 beds were provided for sick poor in fever or famine, still 7,608 applicants were received into the Cork-street hospital alone. By far the largest proportion of these, however, were cases of famine rather than of pestilential fever, and demanded judicious administration of food and other necessities at home, rather than of medicines after admission into the hospital. This fact is important in its application, both with a view to medical and political economy. As a further illustration, in connection with it, it should be stated that under appropriate treatment of the different classes of cases of disease and misery, there were but 258 deaths among the 7,608 received into the Cork-street Fever Hospital, or 1 in 30. The question of an imported contagion was also a subject of anxious discussion in 1817 and 18, as may be seen in the annual reports. The description of the epidemics of the preceding nineteen years equally applies to this period.

In the succeeding four years, 1818 to 22 inclusive (see the Reports from the Cork-street hospital for that period), the relative effects of destitution, contagion, and in a less degree malaria, were distinguishable; but, as appears in the preceding table, neither the average numbers admitted, nor the average mortality, exceeded that of the seven preceding years.

It was during the course of this famine-fever, which prevailed in many parts of Europe, from the same causes, that the new views of its pathology were promulgated, first, I believe, by the French Necrotomists, and afterwards adopted by those of Great Britain and Ireland, namely, that it was produced from beginning to end, by morbid changes in the nervous, but more particularly in the ganglionic system. And having already stated the opinions of other eminent anatomists, in opposition to the assertion of signs of inflammation being always detected in the vascular system of the bodies of those dying of typhus, I was enabled, on equal authority, to disprove the more recent doctrines formed on changes in the organization of the nervous system. Moreover, on reading some extracts by M.

Orfila, from a work then recently published by Dr. Kerner, of Weinsburgh, it appeared that the symptoms before, and the appearances found after death, in an extensive district in Germany, were similar to those of the prevailing disease, and were produced by an unwholesome article of acrid food, which all so afflicted had eaten. Hence it was to be fairly inferred that the same morbid changes were incidentally connected with the acrid contents of the stomach in the famine-fever*. The very decisive testimony of Dr. Kirby and Dr. Macartney, on the appearances they found in examining the bodies of the dead, in the malignant fevers, is also stated in the reports for 1820, 21. Also meteoric tables, which show, by comparison with corresponding ones, the connection between the changes in the weather and the growth of disease. To those meteoric tables and tables of disease, I am the more desirous to refer, because their interest will be found greatly enhanced if examined in juxtaposition with Dr. Henry Cope's *Demonstratio Medico-Practica*, in which learned work similar observations were made in the corresponding period of the 18th century†, when he was State physician in Ireland, and still more so if compared with Dr. Fielding's paper on meteorology and influenza, read at the meeting of the British Association in Cambridge. (Appendix. Note F.)

The epidemic of 1823 (see my report from the fever hospital, and the first part of my Pathological Observations, both published that year), underwent a more extraordinary revolution than any I previously witnessed. Its new characters were diminished temperature, loss of vital power, with corresponding asphyxia, dark petechiæ and ecchymoses with jaundiced interstices, extremities blue, severe vomiting, and mucous diarrhœa—the discharge varying from orange-coloured and green to black, sometimes colourless, as in *lienteria*. Fatal terminations sudden, often preceded by metastases. Paralysis and dropsy also frequently succeeded to, or attended on, protracted cases. These aggravated characteristics were still more manifestly connected than in the epidemics of 1810, 17, and 18, with corresponding changes in the external characters of the blood, drawn in the course of disease, or found gorging the large blood-vessels after death, and corroborated the opinion I had previously expressed, of the blood being the chief seat of typhoid or adynamic, as well as of pestilential diseases. I had,

however, never before witnessed, except in a few sporadic cases, nor seen described by the writers of the 18th century, characteristics so formidable, nor morbid changes in the blood corresponding with them in the same degree. The malignity of the epidemic constitution of the air was otherwise very remarkable at this time (see table), and, as may be seen in the medical journals of that day, it interfered with the recovery of patients after surgical operations, both in this and the sister kingdoms. Besides slight punctures received while dissecting in the anatomical theatres, were often succeeded by suddenly fatal attacks of typhus disease. That the malignant influence of the air was not only epidemic but epizootic, was proved also by its symptoms, such as dark petechiæ in all parts of horses uncovered by lair (the tongue, nostrils, &c.), by glandular tumours, both internally and externally on the same animals; by hepatization of the lungs and vascular congestion; dark and clotted blood, and corresponding changes in that drawn or effused in the course of the disease. Numerous cases of this sort were presented to me by the eminent veterinary surgeon, Mr. Watts*. Through his kindness I witnessed

* That the practice of physic may be even much more improved by comparative pathology than the knowledge of the human system by comparative anatomy, can hardly be questioned by any one, knowing how boundless the field of inquiry is in the one case compared with the other. But independently of this, the greater simplicity of the organs of other animals, and of the diseases of these organs, than in man, greatly aid the physician in detecting (if there be any) the traces of similar diseases after death. In the cases and dissections of the horses referred to in the text, the advantages of examining them very shortly after death, essentially promoted my leading objects, namely, to detect, as far as possible, the transition of disease from the morbid fluids to the morbid solids, and *vice versa*. These symptoms of the epidemic, such as loss of pulse and warmth, coldness of breath, skin dark, and clotted blood, ecchymoses, sphacelus, unnatural motions and sounds of the heart, *bruit de soufflet*, in the thorax were all common to the human patient and the sick horse; so were hepatization of the lungs, infarction of the liver; engorgement of the heart, with dark coloured blood, and also of the large blood-vessels in every part of the body, with the same. Besides these appearances, common to all animals after death, of the then prevailing disease, there was copious effusion internally, of lymph, partly coagulable, but rarely any adhesive inflammation. In now republishing this note, on my report for 1823, I may also observe, that in the spring of 1833, when a fatal influenza was both epidemic and epizootic in Great Britain and Ireland, Mr.

* "Nouvelles observations sur les empoisonnemens mortel qui arrivent si souvent dans le Wurtemberg, par l'usage des Boudans fumes," Par le D^r Kerner Tubingue, 1820, 12 nom.

† *Demonstratio Medico-Practica Prognosticorum Hippocratis, &c. &c.* Ab Henrico Cope, Medico Regio ad st. tum in Hiberniâ.

the course of the disease, and the appearances found on dissection in a much shorter time after death than could have been attempted in the human subject. It was likewise in 1823 that I examined the temperature of the patients in the malignant typhus that then prevailed, and the results were, that even the *calor parum auctus*, of Cullen, was not then applicable to the prevailing distemper, as in many cases the thermometer stood much below 96°. So that fever and pyrexia were then as unsuitable denominations for the existing epidemic in Ireland, as cholera and typhus for that which afterwards committed such ravages in Europe in 1830, 31, 32, 33, 34, and 35. In the same year, also, I was fortunate in proving, by experiments, that the buffy coat on the blood, drawn either in inflammatory or dropsical complaints, did not depend, as previously supposed, in slow coagulation and the subsidence of the red particles, but probably on functional derangement of the chemical affinities subtending to vital power, which my experiments in 1807 indicated in the organs of sanguification. If compatible with the space that could be here given to it, it could be shown that great advantages, both in theory and practice, are derivable from the results of the foregoing observations, but reference, on that part of the subject, to my Pathological Observations, published in 1823, 28, and 30, must for the present suffice. (See 1st, 2nd, and 3rd part of my Pathological Observations).

2,668 patients were admitted into the Cork-street hospital that year, and 241 died, the average mortality being 1 in 11, though from the opening of the hospital to the conclusion of the preceding year, it was but 1 in 16.

The numbers admitted into the Cork-street hospital during the three succeeding years, viz., from 1823 to 1825 inclusive (though then other large fever hospitals were established in every quarter of Dublin), were 11,145, of whom 945 died, showing a mortality of 1 in 11. Thus the virulence of the epidemic constitution of the air that year was exhibited.

The same symptoms continued with as fatal consequences in 1826, and 1827, as in the preceding three years, but owing to the admission of many not labouring under positive disease, the average mortality in the hospitals was less, viz. 17,426 were admitted into the Cork street hospital, of whom 726 died. To those who witnessed the fever of 1826 and 1827, it is hardly necessary to state, that coldness of the sur-

face and of the breath, asphyxia, blue or purple colour of the extremities and frequent fatal terminations, accompanied by purging and vomiting, were then also often to be met with. So much so, indeed, that Baron Larrey, who visited the Cork-street hospital at that time, has since stated, in his Treatise on Cholera, 1830, how much the disease he then saw in Ireland, resembled malignant cholera.

The year 1828 was distinguished by a diminution, both in the number of admissions and of deaths in the fever hospital; but this temporary decline cannot have resulted from a favourable change in the epidemic constitution of the air, for the cases still, in many instances, presented the same symptoms of malignancy, and the blood still exhibited the same pitchy and clotted appearances, whether drawn during disease, or examined in the large vessels after death, as may be seen in the report for that year. Indeed, in all the cases in that report, both those who laboured under exanthematous and other fevers, *tic-doloureux* and dropsy, and the cases of some horses whose dissection is also given there, the morbid influence of the prevailing condition of the atmosphere, was strikingly apparent*. To illustrate the nature of the fever of 1828, and the mode of treatment employed, I shall take the liberty of submitting the following abridgment of a few cases I noted at that time, and published in the Annual Report of that year:

John Baker, aged 64, of a broken-down constitution, was attacked on the 10th of December, 1828, and admitted into the hospital on the 13th of the same month. His countenance was then sunk, his eyes anxious and hollow, his voice almost inaudible; the skin was generally cold and clammy, and of a livid hue, particularly on the extremities; constant diarrhœa, general spasms, no coma, or delirium. On getting some warm wine, which he drank with avidity, and warmth being applied to his limbs, the pulse became perceptible. Camphorated mixture, with the aromatic spirit of ammonia was then prescribed; and turpentine enemata, with frictions of turpentine, were directed. Under these remedies, with the addition of turpentine in draughts, and a blister to the neck, he improved for some days; but on the morning of the 19th December, after walking to the fire without assistance, he suddenly expired. After death, the skin resumed its purple motley appearance. Dissection was not permitted by the managers.

James Crotty, after eight days' illness, was admitted on the 23rd December, 1828, apparently moribund: his head was drawn back, and the trachea protruded by spasm;

George Watts, jun., kindly gave me, for the Surgical Society, a report of cases and dissections of horses, (both here and in England), in which the symptoms, preternatural alterations of the blood, and post mortem appearances, corresponded minutely with what Mr. Watts, sen., and I had together witnessed in the epidemics of 1823 and 27.

* See report for the year 1828, by William Stoker, M. D., particularly from the 79th to 109th page, and from 143rd to 161st inclusive.

temperature under the tongue 90 degs. Nearly the same remedies were employed as in the last case, and with the same temporary benefit, but general spasms set in, and he soon afterwards expired. The purple colour of the body continued.

Mrs. Edwards, aged 38, was admitted 6th December, 1828, in the last month of gestation. Skin cold and clammy, extremities purple, eyes sunk, features collapsed, voice scarcely audible. Besides particular attention to the state of pregnancy, a similar practice as in the preceding cases was adopted, but the powers of life gradually declined and the motion of the fœtus in utero diminished until death of both took place on the 9th of the same month. On *post mortem* examination, beside evidences of much chronic disease in the cranial and thoracic viscera, the vessels on the surface of the brain were darkly tinged. The lungs were hepatized, and of the same purple appearance as the extremities. These latter results of diseased action were most probably of no long standing, and seemed the immediate cause of death*.

The general and very decided check to the growth of disease, which has been already stated to have occurred in 1828, I always attributed to the filip then given to our *sickly retail trade*; and gladly quoted it as evidence of the buoyancy of this country, when relieved from a concurring cause of its aggravated calamities. Moreover, discord, at once the parent and child of such calamities, ceased during the transient period of prosperity. With respect to medical measures, my subsequent experience of their efficacy further warranted me in recommending those I had employed in the aggravated form of the epidemic, in the year 1823, and which I believe were in both cases essentially the same.

In the year 1829, the same prostration of strength, diminution of animal heat, suspension of the vital powers, and other symptoms of malignancy prevailed as in the year 1828. The average mortality for the same reasons was nearly the same as in the preceding year, namely, 234 deaths and 2,839 recoveries, or 1 in 21. In the report of that year too it may be perceived that several cases then detailed of typhus, dysentery, hepatitis, and rheumatism, were accompanied by some of the symptoms above alluded to. These cases seem to me to have suggested to the author of that report, the term cholera, in a preceding page.†

Having repeatedly announced, from the beginning of the year 1830, that the epi-

demic had, in a large proportion of cases, both in hospital and private practice, assumed characteristics of malignant diarrhœa, resembling those diseases described on the Continent, and in the East of Europe, and therefore demanding particular attention, I have drawn up the following table of admissions and deaths for each month during 1830, 31, 32; and for the first two months of 1833, with a view to that question. I have ever avowed that opinion, and I feel it my bounden duty, however misconceived or misrepresented, still to maintain that rigorous investigation on that subject is necessary for public security:—

Months.	1830		1831	
	Cases.	Deaths.	Cases.	Deaths.
January	355	42	454	38
February	287	23	393	31
March	309	20	332	30
April	257	20	290	21
May	250	17	278	28
June	217	20	402	28
July	220	23	244	14
August	15	15	223	28
September	206	22	197	21
October	250	22	200	14
November	292	17	300	36
December	312	26	283	23
Total each year. }	3170	267	3703	307
Average.	1 in 11		1 in 12	
Months.	1832		1833	
	Cases.	Deaths.	Cases.	Deaths.
January	37	31	262	21
February	384	28	265	16
March	364	34		
April	214	29		
May	280	18		
June	241	20		
July	181	8		
August	199	9		
September	167	14		
October	224	19		
November	294	12		
December	239	9		
Total each year. }	3168	231½		
Average.	1 in 13.			

From the above table it appears that the mortality of 1830 and 1831 was nearly the same as in 1823; and that the mortality of 1832, excepting in the first quarter, when it was 1 in 8, and in the other three only 1 in 14; but in the month of June when cholera was most malignant, and therefore more strictly excluded, the mortality was only 1 to 22. This relative diminution in 1832, arose from the fact, that in the months of November and December, 1831, and January, February, March, and April, 1832, cases of the prevailing epidemic, not being yet acknowledged as such, were admitted indiscriminately (the mortality of those months was therefore increased); but during the remainder of the year 1832, when the

* A particular description of this examination by Surgeon Trant, by whom I was assisted, is given at the 153rd page of my report.

† See Medical Report from the Fever Hospital and House of Recovery, Cork-street, for the year 1829. By John O'Brien, M. D., &c., &c.

epidemic was most malignant, severe cases were excluded from the wards of the hospital, and sent to the establishments for the reception of cholera patients. The mortality during the latter months of 1832, was therefore less than in the corresponding months of any year since the Cork-street hospital was opened, according to the first resolution of the trustees "for the relief of the destitute poor afflicted with fever, and to check the progress of contagion, as well as acquire and diffuse medical knowledge." (See my comparative view of cholera, Jan. 1832).

Having thus adverted generally to this mischievous anomaly, I shall proceed *seriatim* with each of the three years in question. And first with respect to 1830, it may be seen in the 3rd part of my Pathology* then published, that besides adverting previously to the decisive evidence of Mr. Searle, in the East, in his publication on epidemic cholera, and to that of Dr. Stevens in the West Indies, in his observations on cholera and typhus, in favour of the pathology of the blood I had advocated, it was also stated "that there was then another form of the pestilence, namely, *Cholera*, which was more fatal than the rest."

The following are abridgments from that publication, of two cases in which the intellects were perfect, and both by their symptoms and *post mortem* appearances, tended to prove a direct connexion between asphyxia, coldness, blueness of the skin, sudden death, and morbid changes in the condition of the blood. In both cases, it may be perceived that the epidemic supervened on other diseases, which predisposed to the attack.

John Martin, a butcher, aged 42, was admitted 24th January, 1830, having laboured for eight days under symptoms of pneumonia, which were relieved by copious bleedings, leeches, and blisters, &c. The blood first drawn, I learned was neither firmly coagulated, nor much buffed, but that the last was pitch-coloured and clotted. At the time of his admission no pulse could be felt even in the iliac and carotid arteries, and but an indistinct fluttering at the heart itself. The skin was icy cold, moist, and livid; and the extremities, nose, lips, and tongue were quite purple, as were also those parts to which blisters had been applied. He walked up stairs without help, and his mental faculties were complete to the last moment. Upon stethoscoping his thorax, that peculiar *bruit de soufflet* which, in the cases of horses in 1828, already referred to, indicated hepatization of the lungs was distinctly audible. Warmth and cordials were vigorously employed, but general

spasms set in, and death followed in twelve hours from admission. On inspecting the body next day, it was generally purple, as was usual at that time, not only in the Cork-street, but in the Edinburgh hospital, according to Drs. Alison and Graham's lectures, which I at that time quoted in support of my Pathology of the prevailing epidemic.

Second case.—Mr. T. W., aged 20. This gentleman had long laboured under caries of the dorsal vertebræ, together with pectoral affections, which had become very urgent in February 1830, accompanied with hæmorrhagic fever and dropsy. He came to town for medical advice, and by the antiphlogistic regimen and small bleedings, was relieved, the blood being buffed, and for some days his strength and appetite continued to improve. Unfortunately, however, he was indulged, unknown to me, by his attendants, with too much food, and the affection of the chest became suddenly alarming. Bleeding and blistering were again resorted to, but not with so good an effect as at first. The blood drawn, became a dark-coloured clot, the lips, tongue, and extremities purple; the countenance livid; the voice failed; the pulse became suddenly feeble, and entirely ceased six hours before death, which was about a fortnight after his arrival in Dublin, and about twelve hours after his relapse*. On dissection, the face, neck, and chest were of a livid hue, the tongue, lips, and interior of the mouth quite purple: hypertrophy of the heart, without disease of the valves: the large vessels were filled with dark blood; numerous tubercles in the upper portion of the right lung; the whole of the left lung was emphysematous, and adherent at its inferior margin by a fistulous communication with the 7th and 8th dorsal vertebræ, both of which were in a state of caries. The abdominal viscera were sound except the pancreas, which was enlarged and tuberculated.

In addition to these specimens of the epidemic of 1830, I can only refer for a more complete description of it to the 3rd part of my Pathological Observations, and to Dr. Grattan's Report of the Fever Hospital and House of Recovery, Cork-street, both published that year. In the former of those publications I recommended the root of dandelion, prepared as coffee, both as a preventive, and a remedy in the severe forms of cholera, and obstinate diarrhœa, which then presented themselves in hospital

* It has been objected by those opposed to the investigation, that I sought such cases, as these in the text and not those of cholera. But I never said they were; I am now sure, however, by comparing them with the cases which those objectors have published as examples of the malignant epidemic of 1832, 3, and 4, and those of 1830, they were essentially the same.

* Pathological Observations, part 3rd, 1830. By William Stoker, M.D., page 11 and 101. At the 109th page the above case of Martin is fully detailed under the head of "Pneumonia Typhoidea."

and private practice, and also preparations of achillœa millefolium or milfoil in those hydropic and rheumatic affections with which they frequently alternated*. Very extensive trial of these vegetable substances, both as substitutes for more costly, and sometimes less safe articles of the *Materia Medica*, as well as favourable reports subsequently by some of my medical brethren, led to my first recommendation of them. I repeated it from finding them well suited for preventing and curing diseases more general amongst the Irish poor than those of other countries (e.g.) epidemic cholera, and diarrhœa, and also for other diseases, which I observed frequently to alternate, since they have become more pestilential; I mean dropsy, spurious phthisis, and rheumatic pemphigus. This peculiarity of the diseases of the poor in Ireland (as will appear more manifest under the subject of statistics) arises, I believe, chiefly from scarcity and insufficiency of food, particularly from the unwholesomeness of the potato, the staple food of the peasantry, when that article, as annually happens, is in a state either of decay or immaturity. An antidote, therefore, to such a national calamity, which might, at the same time be an agreeable substitute for ardent spirits, itself a very general exciting cause of such diseases, must be deemed a *desideratum* of great moment in medical as well as political economy. In Dr. Grattan's report of 1830, it is stated that it appears to him that the forms of the epidemic which then presented themselves "passed by such imperceptible gradations into each other, as to be considered but varieties of the same disease.†"

(To be continued.)

—o—

Reviews.

A Statistical Inquiry into the present state of the Medical Charities in Ireland, with Suggestions for a Medical Poor Law, by which they may be rendered much more extensively efficient. By Denis Phelan, Surgeon to the County Tipperary Gaol, and to the House of Industry and Lunatic Asylum, Clonmel, &c. 8vo. pp. 324. Dublin: Hodges and Smith. London: Longman and Co. 1835.

(Continued from p. 435.)

THE author proceeds to enumerate the acts relating to the Meath Hospital, or county of Dublin Infirmary, and these deserve especial attention. They shew the baneful influence

of private interest in obtaining local acts of parliament as regard Irish affairs. Thus the physicians and surgeons of the Meath Hospital, are empowered, by law, to elect their successors and contemporaries, and consequently they will prefer their relations and friends. Religious bigotry, where great liberality is professed, has more than once excluded able officers from this hospital. Happy country! blessed with such just and beneficial laws. Even an apprentice to one of the surgeons, who paid a larger fee, was excluded from election, because he was a Roman Catholic! though his master was of the same persuasion, and was the first to raise the fame of the hospital. On another occasion, one of the pillars of the temple paid 200*l.* for his site. We could tell something more of the medical staff of the Meath Hospital: but we shall refrain. Surely the exposure of abuses of this sort, must convince legislators of the necessity of repealing acts of this kind. It is for this reason that we estimate the work before us so highly, and so important to our brethren in Ireland: and, therefore, notice it so fully. But to proceed:

"County of Dublin Infirmary, or Meath Hospital.

"By the 13 and 14 Geo. III. the Meath Hospital, in Dublin, was made the county of Dublin Infirmary. And, in consideration of the existing medical officers having proposed to appropriate the 100*l.* a year, to which the hospital would be entitled from the treasury, to the use of the charity, the act made good the appointment of those officers without any further qualification or examination, and, moreover, conferred on them a very valuable and lucrative privilege, viz., that of "electing a physician or surgeon, in the room of any physician or surgeon who from time to time, by deaths, removal, or otherwise, shall make a vacancy in said hospital." This principle of electing the physicians and surgeons of this hospital, by those already appointed, is, as before observed, a valuable and lucrative privilege, but whether in the present day it is one which will meet the sanction of the legislature remains to be seen, particularly as the medical officers of this hospital have engrafted on it a regulation, by which they elect none as surgeons to the hospital, unless such as have been the apprentices of some of the attending surgeons; a custom which is loudly complained of by the profession in Dublin, and which is stated to be injurious to the interests of the institution, as indeed all exclusive professional privileges are invariably found to be.

* Pathological Observations, part 3, on inflammatory, typhoid, and symptomatic diseases, &c. Dublin, 1830.

† Report of the Cork-street Hospital for 1830. By R. Grattan, M. D.

"The 15 and 16 Geo. III., made donors of 10*l.* life-governors, and subscribers of one guinea annually, governors for such year."

Our author next gives us an account of the laws relating to fever hospitals, by which it appears, that the members of the Dublin College of Surgeons, who are not physicians, are the only officers of such institutions. Here again is private or rather corporate influence at work, for the Dublin Surgeons, imitating the example of the London, to whom we did justice in last week's leading article, have allowed themselves, like their brethren in Pall Mall, to be stultified by their rivals. The truth is, that until the Catholic emancipation and reform bills were passed, a faction had every thing its own way in Ireland. Surgeons were allowed to act as physicians to fever hospitals, a system that would not be tolerated in England or Scotland. But let us hear Mr. Phelan on the subject.

"Act relating to Fever Hospitals."

"A few fever hospitals were established in some of the larger cities in Ireland, under special acts of the parliament of this kingdom. But until 1807, there was no general act to enable grand juries to present for such institutions in counties at large. The 47 Geo. III., c. 44, provides "that whenever any fever hospital has been, or shall be, established in any county, county of a city, or county of a town in Ireland," it is lawful for the grand jury to present a sum of 100*l.* at each assizes; and the 54 Geo. III. enables these bodies to grant 250*l.* for the support of such hospital. Useful, however, as these provisions were, the annually increasing progress of the most malignant epidemic fevers ever known in Ireland, soon made it necessary to grant enlarged powers. Accordingly, the 58 Geo. III. creates a corporation in each county in Ireland, consisting of respectable and influential persons, who are authorized "to build, or hire houses, to be called fever hospitals, for the relief of the poor being ill of fevers," in any place in which funds have been raised for a fever hospital, or for a dispensary connected with one; and the grand jury is empowered to present every year any sum not exceeding the amount of such subscriptions for the support of such fever hospital. But in places where no fever hospital has been erected, or in which such institutions exist, but require to be repaired or enlarged, grand juries are authorized to present any sum which may be necessary, "to erect, establish, hire, repair, and fit up, one fever hospital in any county, county of a city, or county of a town, in which no such fever hospital had been previously established." And that the full amount of such monies as it might be necessary to levy, for

the establishing of these charities, should not influence grand juries, or the corporations entrusted with their establishment, or prevent them from exerting themselves in forwarding such hospitals, the act wisely provides, that the Lord Lieutenant may, *at once*, advance such sums as may be necessary, which are to be repaid by six years' instalments by the county.

"Under this act, the inhabitants of any parish or district are authorized to appoint a board of health, whenever fever or any dangerous epidemic is proved to exist, and government to lend them money, to be, however, repaid by such county, to meet the necessary expenses of checking the progress of such disease, and curing the sick poor. The seventh clause deserves to be given at length, "that, whenever it shall be made to appear, by statement on oath, to the grand jury of any county, city, or town, that there has actually been received from private subscriptions or donations, any sums of money for the purpose of erecting or hiring any house, to be applied to the reception of fever patients, and either attached to any local dispensary or not, and upon a certificate by one or more physicians, that there is a necessity for providing accommodation for such patients, it shall and may be lawful for such grand jury to present in any such county, city, or town, any sum not exceeding double the amount so raised by donation or subscription, and actually received by such treasurer, to be applied by the subscribers in erecting, or hiring, and fitting up such house for poor fever patients, and it shall and may be lawful *also*, for such grand jury to present any such further sum as shall appear necessary to them for the support of houses for the reception of fever patients, whether established before or after the passing of this act, not exceeding double the amount of subscriptions and donations received by the treasurer, and verified on oath." Annual subscribers of one guinea have the power of voting, and are a part of the corporation.

"In passing the 59 Geo. III., the legislature appear to have apprehended the objections and inconveniences, which I shall hereafter shew, apply to the board of health, and, accordingly, provision is made for the appointment of officers of health, whose authority is considerable; but there is this great difference, that the funds expended by the latter must be raised off the parish, and levied by vestry; a provision attended with advantages and disadvantages, and by no means as useful as it was expected to be.

"An act of the 11 Geo. IV., extends, or explains, that of the 58 Geo. III., so that no difficulty should be thrown in the way of obtaining presentments for houses of recovery, for double the amount of that subscribed in counties of cities and of towns.

"The 4 and 5 of William IV., or M. O'Brien's act, enables the governors of fever hospitals to rent or purchase houses or land,

for the purpose of establishing such charities on sure tenures, which before was sometimes difficult: and it makes the payment of subscriptions one year at least before 'the election of any medical officers or any other persons employed in the management of a fever hospital,' imperative, to entitle subscribers to vote at such elections."

Here is an excellent act against bribery and vote-making at elections for fever hospitals; and it is confirmed by the recent law respecting dispensaries, which, strange to say, is not in force in England.

"Acts relating to Dispensaries."

"The 58 Geo. III. is one of the most valuable, if not actually the most, ever passed for the support of Irish medical charities. It authorizes grand juries to present sums equal in amount to those sworn to as having been received by the treasurers of these institutions. Subscribers or donors of one guinea are annual governors, and if the dispensary be connected with a fever hospital, they are governors of both, and until 1833, could vote immediately on payment of their subscriptions; but the 3 and 4 Will. IV., and the grand jury bill of that year, makes it necessary that subscriptions shall be paid one year before any elections of physicians or surgeons; the only exception to this provision being in favour of the original contributors.

"A clause of the 3 and 4 Will. IV., empowers grand juries to withhold presentments in case of bribery at the elections of physicians, or surgeons of infirmaries, fever hospitals, or dispensaries, giving them the power of examining on oath any medical officers 'so elected, or any other person or persons in said county, touching the said election,' and if it appear that any bribe has been given directly or indirectly to influence votes, the grand jury is authorized and required not only to withhold the presentments, but such physician or surgeon is deemed incapable of receiving any money from such county for the management of any of these institutions.

"The Irish grand jury bill of 1833, makes it necessary to lay all the accounts for infirmaries, fever hospitals, and dispensaries, before the magistrates and rate payers, at special sessions, without whose approval the subsequent grand jury cannot grant presentments.

The law ought to be in force in England and Scotland, for nothing can equal or exceed the abuses in hospitals, dispensaries, and public charities in the former. It is notorious that private interest and money secure elections in this metropolis; and that merit has not the slightest chance of success. We now come to the laws respecting lunatic asylums.

"Acts respecting Lunatic Asylums."

"Previous to the year 1821, the state of the lunatic poor of Ireland was miserable in an extreme degree, the chief provision made for their support or treatment being an asylum in Dublin, and one in Cork, both pretty large, and not so badly conducted as some smaller ones in a few other places. The 46 Geo. III. enabled grand juries to present 100*l.* a year for the support of any asylum connected with a house of industry, and a subsequent act increased the sum to 300*l.* a year. Few counties, however, had, or have houses of industry, and still fewer lunatic asylums connected with them. But the 1 and 2 Geo. VI. makes ample provision for every lunatic pauper in Ireland. It authorizes the Lord Lieutenant to direct any number of asylums for the lunatic poor, to be erected and established in different districts, consisting either of two or more counties, or of one county or town only. Each asylum built for two or more counties to contain room for not less than 100, or more than 150 lunatics; and such as are for a single county, or city, or town, to hold at least fifty, or as many more as the Lord Lieutenant deems necessary. The different grand juries are obliged to present such funds as may be required to build and furnish such asylums, and to repay them by such instalments as the Lord Lieutenant directs, who advances the entire from the consolidated fund. He is also empowered to appoint a board of local directors or governors for every and each asylum, when built, and a general board of control and correspondence, and for the superintending and directing the establishment, direction, and regulation of such asylums; this general board to consist of not more than eight persons, who must act without salary, fee, or reward. The Lord Lieutenant and privy council are authorized 'to make, frame, and establish, or upon the recommendation and suggestion of such commissioners for general control and correspondence, to adopt and authorize any rules and regulations for the good conduct and management of such asylums in general, or of any asylum in particular.' When the Lord Lieutenant issues a proclamation for the building of an asylum, the general commissioners are empowered to take a lease of any lands or premises they may please, or to get such valued by a sheriff's jury, (a power which is also vested in the governors of infirmaries in the renting or purchasing of lands or premises for these institutions). The asylum, when furnished, is then handed over to the local governors, to whom the grand juries are obliged to supply funds for the support of such asylum; and by whom a yearly statement of the expenditure, number of patients admitted, discharged, and died, is transmitted to the commissioners of imprest accounts. All criminals tried and acquitted on the ground of insanity, and such as are found insane at the time of their

indictment, may be detained and confined in these asylums, under the order of the courts and the directions of the Lord Lieutenant.

“By the 6 Geo. IV. the Lord Lieutenant is authorized to advance any sums not exceeding 40,000*l.* a year, to be issued out of the consolidated fund, for the support of such establishments; but the grand juries of the respective counties are obliged to make presentments for the repayment of such advances: and an act of the seventh of the same reign, gives the Lord Lieutenant and privy council the power of ‘changing or altering any asylums that have been built, and of erecting and establishing new or additional asylums in lieu of, or in addition to, any asylum or asylums erected under said act.’ But in such cases the expense must still fall on the district for which the asylum is established. When two or more counties are united in a district, the proportion of the expenditure to be paid by each, is ascertained by the Lord Lieutenant and privy council, and if the grand juries refuse to present this proportion, the going judge of assize is authorized to grant such presentment.

“The only other act relating to medical charities which I think it necessary to advert to, is the 1 and 2 Geo. IV., or Mr. Spring Rice’s. It is entitled, ‘an act to make a better provision for the *superintendence* of charitable institutions in Ireland, maintained in the whole, or in part, by grand jury presentments, and for the more effectual audit of the same.’ Its provisions are, that grand juries are empowered to appoint a board of superintendence in each county, to be composed of no less than eight, or more than twelve persons, one half of whom, at the least, shall be justices of the peace for the county for which they are appointed, with power to any three of them to ‘visit and inspect each and every charitable institution’ in such county receiving grand jury aid, and to ‘inquire into and examine the management and discipline thereof, and into the mode in which the several laws, rules, and directions, for the regulation of such charitable establishments are carried into effect, and into the accounts of receipts and expenditure, the attendance given by the several officers and attendants, and to audit and examine the accounts and vouchers of such establishments; and such board to make a report upon each such establishment to the grand jury at each assizes, copies of such reports to be annually printed, with the lists of presentments made at such assizes.’”

These laws are infinitely superior to those relating to the insane in this part of the kingdom. Look to the abuses at Hanwell Asylum, Middlesex, the very sink of iniquity. The last section, relating to acts of legislature on public charities, does not apply to England, which has the blessing of Poor

Laws, that empower every unprincipled scoundrel to seduce and destroy female virtue and honour with impunity. Well may men declare, “the New Poor Law is capital for them”—“the great boon to the female part of the population.” What ignorance on the part of those who enacted it, whose depraved and selfish licentiousness, and ignorance of physiology or the history of human nature, led them to inflict the most unjust and irrational penalties on the weaker sex to the exemption of their own. Is there any one who has closely observed human nature and the world, who will not admit, that men are infinitely more licentious than women, that males of all the mamiferæ are more violent in their amours than females? If this is the fact, and no physiologist can deny it, why pass this iniquitous law, that enables the most depraved and the most gregarious to escape with impunity? We have no hesitation in pronouncing it demoralizing, unnatural, and unjust; and that the common sense of the public will cause it to be speedily repealed. If men are so profligate and abandoned as to be gregarious in their amours, women have an equal right according to the laws of nature, for she does not sanction different privileges to the sexes. She ordains that one sex has the same rights as the other; and it is vain for stupid legislators, and enemies to population, to decree the contrary. But we must conclude for the present with the following extract.

“Acts relating to Houses of Industry.”

“At least one third of the inmates of our work-houses are incurable lunatics, idiots, diseased prostitutes, and persons affected with various chronic and incurable complaints. These institutions being, therefore, in a great measure, medical charities, a brief account of the laws by which they are established and supported, may not be here unnecessary.

“The 11 and 12 Geo. III. repeals an Irish act passed in the reign of Hen. VIII., and another in that of Ch. I., intending to check vagrancy, by badging the poor, and erecting houses of correction, ‘for the suppression of rogues, vagabonds, and sturdy beggars,’ and creates a corporation in every county, county of a city, and county of a town, in Ireland, for the purpose of ‘giving countenance and assistance to those poor who are found disabled by old age and infirmities, to earn their living, and to restrain and punish those who may be able to support themselves by labour

and industry, and yet may choose to live in idleness by begging.'

"It also empowers such corporations to grant badges to the helpless poor, who have resided a year within their districts, which license them to beg in such districts for limited periods; and when possessed of funds, it requires them to build 'hospitals or work-houses, to be divided into four parts:

"1st. For poor helpless men deemed worthy of admission.

"2nd. For poor helpless women.

"3rd. For the reception of men committed as vagabonds or beggars.

"4th. For such idle, strolling, or disorderly women, as shall be committed and found able for labour.'

"This act provides, that 'the grand juries at every spring assizes, may present in counties of cities and towns, any sum from 100*l.* to 200*l.*, and in counties at large, from 200*l.* to 400*l.*, for their respective poor.' The act of 1784 empowers the judge of assize to direct the grand jury to present 100*l.* if he thinks necessary, in addition to the funds provided for by the act of 1772. By the act of 1806, the grand juries at the summer assizes may present such additional sums as shall amount to 400*l.* at least, or at most, 500*l.* in cities and towns, and in counties at large, from 400*l.* to 700*l.* the judge being satisfied that such additional sums are necessary, and the funds well expended. And the act of 1818 provides, that 'the grand jury of every county, county of a city, or county of a town, may present any sum, not exceeding 500*l.* in the year, over and above, and exclusive of any sums which they were by law empowered to present for any houses of industry under the former acts, to be applied towards the support of their respective houses of industry.'

"The act of 1787 empowers the grand jury of a county, in which there is no house of industry, to present, at any spring assizes, the sum allowed by the 11 and 12 Geo. III., for the house of industry of an adjoining county, into which the poor of the former should be received, until one could be built for itself. It also 'authorizes the grand juries to present such sums as should appear to them necessary, for providing and supporting wards for such idiots or insane persons, as should be recommended by two or more magistrates, certifying, that such persons were idiots or insane, and destitute of any means of support,' and 'such sums to be accounted for by the surgeons of the county infirmaries.'

"The governors of houses of industry are the archbishop and bishop, the members of parliament for the county, city, or town, all magistrates for such counties, the sheriffs, recorders, and mayors, all donors of 20*l.*, and annual subscribers of 3*l.*, and such as are elected by these governors, without the payment of any such sums.

"But though such facilities are afforded

by these acts for the establishment of houses of industry and lunatic wards, in each county, city, or county of a town, I find it stated in the report of the House of Commons' committee, of 1830, on the state of the Irish poor, that only eight or ten such institutions had been erected: of these, Leinster and Munster possess eight in the following places, Dublin, Wexford, Kilkenny, Waterford, Clonmel, Cork, Limerick, and Ennis. The latter seven are county institutions; the first is now supported by government, not by the city and county of Dublin, as it was originally, and is, therefore, apparently a house of industry for Ireland, not for the metropolitan city and county."

—o—

Practical Observations on Midwifery. By William F. Montgomery, M.D., M.R.I.A., Professor of Midwifery to the King and Queen's College of Physicians in Ireland, and Physician Accoucheur to Sir Patrick Dun's Hospital.

—

(Concluded from page 479).

CASE IV.—Early in the summer of the present year I was requested by Dr. Sparks to see a patient, in whom I found this condition of the uterus very strongly marked, and it had given rise to a suspicion of the existence of malignant disease, of which however there was, in my opinion, no trace. On inquiry I ascertained that the symptoms had been going on at intervals, from the time of a miscarriage on the 18th May, 1834, a second miscarriage having occurred at the latter end of July following, and a third on the 3rd February, 1835; all through, except when miscarrying, she has had little or no pain, has slept well, and preserved her appetite, in consequence of which, although her face is blanched by the repeated discharges, she has not emaciated. Under the use of tonics her health has greatly improved, and when I last saw her in July there was some reason to believe that she had again conceived, as she was experiencing many of the symptoms which had attended her pregnancy in former instances.

§ 2. The existence of relaxation of the uterine tissue after profuse hæmorrhage is what we would naturally anticipate under circumstances of such extreme exhaustion as almost necessarily follows such an occurrence; when the state of the organ appears to be identified with that of the other muscular structures throughout the body, participating in their loss of tone; and the observation of the fact promises to be useful so far as it suggests to us, in addition to other general considerations, that under such circumstances, besides the more obvious indications of using restoratives for the general powers of the system, the local application

of tonic agents, and the use of specific stimulants, for the purpose of bracing the uterus, may be resorted to with advantage. Hæmorrhage may of course be an adventitious debilitating cause in the case of abortion, as in Cases I. and IV., and then it and the relaxation will act and react, producing each other reciprocally, in the successive relation of cause and effect; which chain of morbid actions can only be effectually broken by withdrawing the individual from the possibility of conception, until by proper treatment the constitution is restored, and the organ more immediately disabled has recovered its healthy tone by being, as is said in agriculture, allowed to lie fallow for a season; the good effects of which is seen in some of the foregoing cases.

The various practical considerations connected with this part of our subject would, if followed out, lead into a very wide field of discussion, on which I do not propose to enter at present, beyond submitting the outline of a case in which this relaxed condition of the uterus was ascertained by dissection four weeks after labour, accompanied by profuse hæmorrhage.

CASE V.—M. T. was delivered on the 20th May, after profuse hæmorrhage, produced by the implantation of the placenta over the os uteri; for some days she went on favourably, but being exposed to much annoyance, and greatly mismanaged by friends about her, she was seized with low fever, and an affection of one of the limbs resembling phlegmasia dolens, and died at the end of a month. On examination after death the uterus was found considerably larger than it ought to be at such a period after delivery, measuring four inches and a quarter in length, and more than two and a half in breadth; its cavity would easily have contained a small hen-egg; the os uteri and cervix quite open, and sufficiently relaxed to allow the introduction of my forefinger; its parietes were about three-eighths of an inch thick, with their structure as soft and flabby as that of any other muscle in the body, so that it might be rolled round the finger, and when divided by the knife the vessels were found uncontracted and pervious. From the result of several instances in which I have had occasion to make examinations in such cases during life, I have learned that this state of the uterus is of very frequent occurrence under such circumstances; in connexion with which there is a question which very often meets us in practice, and which it may be proper to notice here—ought patients who have experienced considerable hæmorrhage in labour be allowed to nurse? In my opinion they ought, if there be not some other reason to object to their doing so, because unquestionably the mammary excitement and irritation which accompany the early part of lactation, propagate their influence to the uterine system, promoting there active contraction, and so assisting very

decidedly in speedily restoring the organ to a condition of permanent safety: indeed it appears to me very probable that the occurrence of chronic relaxation after early abortion (independently of hæmorrhage) so much more frequently than after delivery at the full time, or the more advanced periods of pregnancy, is probably to be attributed to the want of the mammary excitement occurring under the latter circumstances, especially when the mother nurses; and even when that is not the case she has at least the benefit of the stimulus given to the uterus by the increased action in the breasts for the formation of milk. But for the very same reason that we would sanction and recommend nursing for a short time, we may find it necessary to prohibit its continuance beyond half or quarter the period through which it is usually carried on, should it appear to be disagreeing, and producing the well known consequences of undue lactation, the injurious influence of which, let it be remembered, is to be recognized and estimated by the degree of disorder effected in the system, and not by the length of time the process of suckling has been continued; indeed this is a point of which every day's experience convinces us, that one woman will suffer more exhaustion and constitutional derangement by three months' nursing, than will another by twelve, or even more: and one of the ill effects thus produced is, I have reason to believe, this very condition of the uterus which we have been here considering.

§ 3. It is perfectly well known that when nursing disagrees, or has been too long continued, a very prominent group of the symptoms experienced are precisely those which are found to accompany relaxed states of the uterus induced by other debilitating causes: the patient complains of uneasiness and distress referred to the stomach, with disordered digestion, pain affecting the small of the back, leucorrhœa alternating with frequent returns of sanguineous discharges, and from examinations made under such circumstances I have learned that the condition of the uterus which I have been describing is very frequently, if not always, induced in a greater or less degree; of which the following case affords an example:—

CASE VI.—In July last I saw a lady of healthy aspect, and apparently sound constitution, who had been nursing for nearly seven months, with an inordinate quantity of suck; her system had become greatly affected, and she presented many of the morbid effects of undue lactation, such as derangement of the digestive organs, pain in the back and left side, with almost constant slight red discharges, and occasional leucorrhœa; an internal examination being considered necessary, I found the vagina greatly relaxed, the uterus had slightly descended, was evidently enlarged, and softened in its texture, and the os uteri sufficiently relaxed and open to admit readily the end of

my finger. Immediate weaning, attention to restore the impaired digestive organs, a few tepid salt water baths, tonics, removal to the shore of Wicklow, and sea-bathing soon completely restored her health.

This day, Sept. 9th, this lady called on me, and informed me that the irregular discharges have entirely disappeared, and that the catamenia have returned twice at the proper periods.

This subject of the morbid effects of undue lactation has been very ably treated of by Dr. Marshall Hall*, and I refer with much satisfaction to his highly philosophical account of the state of the system under such circumstances, because the symptoms he describes, and the altered conditions of certain functions, as observed by him, are perfectly in unison with the existence of such a state of the uterus as I believe to be the proximate cause of some of the morbid phenomena, while it is itself, in common with some others, a joint effect of the general relaxation and exhaustion brought on by the undue lactation. Thus he notices, as a prevailing symptom, profuse menorrhagia, alternating with leucorrhœa; he mentions that, in common with other organs, the "uterus suffers," p. 230, but he does not specify how; and the derangement of the alimentary canal appears to him to "consist in loss of tone and power," p. 233. In all this, as well as in the whole tenor of his observations, I fully concur with him, and have only to add to what he has said, that what "the uterus suffers" is relaxation, both of its tissue, by which its vessels are allowed to discharge their contents too readily, and of its connexions, by which it acquires a tendency to prolapse; and I wish to observe here, as confirmatory of a former remark on the same subject, that when patients who have been recently exhibiting the peculiar symptoms of undue lactation happen to conceive within a short time, they very generally miscarry; an accident which I believe to be owing to the relaxed and debilitated condition of the uterus at the time.

Treatment.—The plan of treatment which appears to me suitable is sufficiently explained in the cases related, to render it unnecessary to enter much into minute details. The class of medicines that will do most service are tonics, such as sulphate of quinine, or other preparations of cinchona, gentian, colomba, chalybeates, mineral acids, country air, bathing in the open sea, and cold tropical abluion. Should the hæmorrhage burst out so profusely as to endanger life, or produce great exhaustion, means should of course be adopted to arrest it on the instant, for which purpose the tampon with pressure and the ergot of rye are the means on which generally our greatest reliance ought to be placed. Occasionally an opiate, or the

application of cold, may be used with advantage; but I cannot avoid observing, that the indiscriminate liberality with which both these remedies are applied in practice is greatly to be deprecated. As to cold, the common modes of applying it are highly injudicious, and often absolutely hurtful: a napkin is soaked in cold vinegar and water, and laid on the external parts, or over the pubis, where it is allowed to remain until it is removed smoking with heat; this is mere trifling, a pretence of doing good, without the least probability of benefit. At other times the patient is kept for hours or for days, as in Case III., surrounded with wet and cold, chilled and shivering, until the powers of life are sunk to the lowest ebb; and I have before me notes of two or three other cases in which a similar plan was pursued, until the patients were reduced to a state of the most alarming depression, which was instantly exchanged for one of comfort and safety, by substituting dry and warm cloths for damp and cold, and excluding the chilling blasts from an open window at an inclement season of the year. The general principle on which we should use this remedy appears to me to be this, that its greatest benefit is to be expected from the suddenness of its application, acting as a stimulus to contraction, and not from the contracted influence of its refrigerating power*, the result of which is very often the increase of the prostration which we intended to relieve: *ne quid nimis* embodies a rule not less laudable here than on many other occasions in the practice of midwifery. The opinion of Pasta† so fully embodies my own ideas on this point that I must beg leave to quote his words. "L'emploi de ces moyens demande beaucoup de prudence, car il importe de proportionner les degrés et la duree du froid aux forces de la femme. Sans cette precaution, on risquerait de provoquer en elle des frissons qui mettraient la vie de la malade en danger, ou qui redoubleraient les accidents auxquels on se propose de remedier." It may not be considered misplaced here just to mention, that in a case which I lately saw of dangerous relaxation of the uterus, which occurred *eight days after delivery*, the lady experienced more comfort and support from swallowing a few spoonful of water-ice than she did from the use of any of the usual stimulants. With regard to the ergot of rye, I wish to observe that the benefit which is now so well known in many instances to follow its administration in cases of protracted menorrhagia‡ ap-

* Baudelocque, speaking of the use of ice and snow for such purposes, says, "Quand leur contact ne determine pas a l'instant le resserrement de l'uterus on ne doit plus guere compter sur leur efficacite, c'est leur premiere impression qui doit faire cesser l'inerie."—*Traité des Hæmorrhagies*, p. 240.

† *Traité des Pertes de Sang*, tom. ii.

‡ See a highly interesting case of this kind,

* Commentaries on Diseases of Females, Part I., p. 230.

pears, from what we know of the specific action of that peculiar remedy, strongly confirmative of a belief that those irregular and excessive discharges are often dependent on such a relaxed state of the uterine fibres as we have been considering.

"It remains for me now only to observe, that a correct appreciation of the nature and exact characters of this affection is of the utmost importance in practice. 1st. Because from the accompanying discharges, and the debility thereby induced, it constantly leads to a suspicion, on the part of both patient and practitioner, of the existence of organic uterine disease, a suspicion which a vaginal examination rather tends to confirm than remove, the organ being found increased in size, with the cervix and os uteri tumid and puffy, and I am strongly disposed to believe that this is really the condition of the uterus represented by Madame Boivin, 23rd Plate, Fig. 1, which she describes as "a scirrhus tumefaction of the posterior lip of the os uteri, taken from a woman who died of pulmonary consumption after an abortion in the sixth month of pregnancy*." 2ndly. Because if proper measures are not used to remove this condition of the organ, it breaks down the health by profuse discharges, and by inducing a repetition of abortions; for, instead of preventing conception, in the cases which I have seen, it has been already remarked that the subjects of this affection have proved pregnant more quickly than usual.

—o—

Foreign Medicine.

Case of Poisoning by the Vinous Tincture of the Bulbs of Colchicum—Death in Twenty-two hours. By Dr. Caffé, Chief of the Ophthalmic Clinic in the Hôtel Dieu.

JOSEPHINE DE BRESIGNE twenty-five years of age, (the adopted daughter of M. X.), of small stature, and a nervous temperament, enjoyed very good health, until she met with a sudden and violent domestic disappointment. This seemed to her to justify self-destruction; and the following were the means she adopted to effect it. M. X. being often affected with chronic rheumatism and fits of the gout, on every attack derived great advantage from frictions with the vinous tincture of the bulbs of colchicum. This he prepared himself, by putting into a

bottle two bulbs of colchicum, roasted and powdered, and then filling the bottle with equal parts of white wine and brandy, leaving the whole to macerate for an indefinite period. On the 2nd of June, 1835, at seven o'clock in the evening, two hours after a slight repast, at which she had taken only some broth and a few vegetables, Josephine drank a glass of this vinous tincture, which had been two months in preparation. The size of the glass (which she said was full) indicated the quantity swallowed to have been about five ounces. Immediately violent pains in the gastric region came on; and half an hour had scarcely elapsed, before the act of which she had been guilty was discovered. M. X. made her drink nearly two pints of milk, and had her taken to M. Martin, an apothecary, who immediately sent for a physician. The latter, M. Fièvreé, endeavoured to produce vomiting by irritating the fauces; but failing in that, he administered two grains of tartar emetic in solution. Vomiting commenced, and continued with intensity.

An hour after midnight I was called, and found the patient in the following state: general coldness; great pallidity; no stiffness of the limbs; decubitus on the back; no convulsive movements; pain at the epigastrium, especially on pressure; oppression at the chest; difficulty of breathing; lips of a violet colour; eyes generally shut, but from time to time the patient opens them, and distinguishes perfectly surrounding objects. The pupils are not dilated; the tongue is cold and discoloured; the pulse slow and thready. The abdominal parietes seem to be of a higher temperature than the rest of the body. No alvine dejection has taken place; but the excretion of urine is not suspended. The patient is consumed by a burning thirst. She retains the complete possession of her faculties; says she wishes to die; and entreats me not to save her. The cramps, which are very severe, are confined exclusively to the feet. Plaintive cries alternate with profound prostration of strength. The vomiting is renewed every instant, nothing but a little inodorous and colourless fluid being ejected. The persons present informed me that the first vomitings were abundant, and of a brownish-coloured matter. This declaration, together with the

which occurred after a tedious labour, a cause very likely to debilitate the uterus, in Dr. Hall's Commentaries, &c., p. 206.

* "A la suite d'un avortement dans le sixieme mois de la grossesse."—*Maladies de l'Uterus*, &c. Atlas, p. 22.

length of time which had elapsed since the ingestion of the poison, and during which period the vomiting might be said to have been uninterrupted, convinced me that there could not be left in the stomach the smallest particle of the vinous tincture of colchicum. Had there been any doubt on the subject, I should not have hesitated to administer gallic acid, or pure tannin, which would probably have precipitated the vegetable alkali, and would have reduced the veratrine to the state of an insoluble bitartrate. I had not forgotten the important researches of M. O. Henry, on the action of tannin on the vegetable alkalies*.

In this serious state of affairs, my only course was to grapple powerfully with the effects of the poison, without attending to the deadly substance itself. I ordered sinapisms to the soles of the feet, together with warm aromatic frictions of the limbs; and I made the patient drink effervescent iced lemonade.

The next morning, at six o'clock, there was an extraordinary abatement in the symptoms. There was less heat at the epigastrium, and the attempts at vomiting were at long intervals. The pulse had acquired more force and frequency. The cramps in the soles of the feet were less painful, but had not changed their situation. The eyes were hollow. I recommended sinapisms to the thighs, and ten leeches to the epigastrium. Professor Biett, who was called in during my absence, insisted on the application of the leeches, and added an infusion of mallows, with milk for drink.

At noon I again saw the patient, in whose condition there was no amendment. The loss of blood from the leech-bites had been very moderate. The eyes were rarely opened; the pupils were not dilated; notwithstanding the assertion of authors who give this as a constant symptom in poisoning by vegetable alkalies, and the narcotico-acids.

Three hours afterwards, the pulse could no longer be felt at the wrist, the carotids alone beating feebly, and at long intervals. There was general coldness; but the intellectual faculties were still entire. A drastic enema produced only one evacuation.

Hiccough and attempts at vomiting occasionally took place, and pains at the epigastrium recurred at intervals. The weakness was extreme; but there was no tetanic rigidity. Finally, death took place at five o'clock in the afternoon, in the presence of MM. Martin and Francon.

At ten o'clock at night the body was examined externally, first by M. Biett, and then by me. It appeared sensibly emaciated; the eyes were sunk in their sockets, and surrounded by a dark circle. The eyelids were closed, but on opening them the pupils were found not dilated. The abdomen was tympanitic, and the limbs were stiff. Over the whole body, touch imparts the sensation of a temperature much below that of the surrounding air.

The official examination ordered by the Procureur du Roi did not take place till seventy-two hours after the decease. It was performed by MM. Olivier (of Angers) and West, in the presence of MM. Fièvreé, Largé, Biett, (senr.) and myself. The bladder contained a little urine; the uterus was empty; the liver and spleen were gorged with black blood; the lungs were healthy; the heart was large and flabby, and filled with black coagulated blood. The head was not opened. The stomach and intestines were put into a jug, and sent to the Palace of Justice. There was no necessity for this, since the suicide was notorious: and it rendered it impossible for us to state the pathological condition of those viscera, and thus to complete a case which could possess no other than a scientific interest.

The investigation which I have since made into this species of poisoning has satisfied me that there does not exist another authentic example of death from the employment, in the case of the human subject, of the different preparations of the *bulb* of the colchicum; while poisoning by the tincture of its *seeds* is frequent, both in England and in Germany. In the present case one symptom struck me, from its singularity and its perseverance. I allude to the cramps—the pains in the soles of the feet. The same pains, but confined to the heel, I find mentioned in a case of poisoning by the tincture of the seeds of colchicum. It occurred in a man who worked in a pharma-

* Journal de Pharmacie, 1834.

ceutical laboratory, and who died after drinking an ounce of the tincture just mentioned, mistaking it for tincture of orange-peel. This case was published by Dr. Andrea of Magdeburg, in a German work, entitled the *General Bulletin of Pharmacy*, for the 15th of September, 1834.

The colchicum formerly enjoyed a reputation better merited than the neglect into which it has now fallen. This plant, which gives its name to a whole natural family, is very abundant in the environs of Paris—in the Bois de Boulogne, for example. It is known vulgarly by the names of dog's bane, bastard saffron, &c. It flowers in autumn. The bulb is as large as a pigeon's egg. If more than a year old it wastes, and is insipid and inert, and may be eaten without inconvenience. It contains much fecula—a discovery which is due to Parmentier. The bulb of the first year, on the other hand, which has begun to shoot in August, in order to increase during the winter, and to flower in the following autumn, contains a great deal of veratrine, an acrid and very dangerous milky juice. The bulb should be taken up in August, before it has produced a stalk and leaves. This, indeed, is difficult; since at that period there are neither leaves nor flowers to point it out. Nothing indicates the place of its growth, unless it has been marked previously. It is this difficulty—it is the error so easily committed of confounding the active bulb with that which is not so—that is to say, the old bulb with the new, which has caused the therapeutic properties of this substance, so energetic if properly collected, to be called in question. To obviate this inconvenience, we ought perhaps to make use of the leaves or flowers, which are annual, and contain active principles, fatal to certain animals which eat the plant. Already, indeed, the tincture of the seeds of colchicum autumnale is frequently used in rheumatismal ophthalmia, especially in Germany. Nevertheless, at the ophthalmic clinic of the *Hôtel Dieu* I have rarely seen it succeed, unless conjoined with other remedies, which might challenge the honour of the cure.

Storck, who composed a special treatise on the action of colchicum, gave it as a powerful diuretic in passive dropsies. Plenck, and many other practitioners, have given it

in the dose of two drachms daily, in the form of oxymel—stating that the vinegar moderated the too great violence of the bulb.

It was in 1814 that the English physicians discovered the properties of colchicum in acute rheumatism and gout, no longer employed in the form of oxymel, but in that of a tincture, or vinous infusion. Sir Everard Home used it on his own person for seventeen months. According to that physician, we may give the preparations of colchicum in very large doses, by commencing with fifty or sixty drops in the twenty-four hours, without fear of accident, provided we filter the wine or alcohol, in order to separate the dregs of colchicum; the latter being so virulent as to cause mortification of the mucous membrane of the mouth and stomach. Sir Everard assures us that fits of the gout are promptly removed; and that in all cases, the interval between the paroxysms is greatly extended.

Dr. Lignum, member of the Royal College of Surgeons in London, reports, in the *London Medical*, the case of a female, who, after an attack of gout had lasted four days, took daily, for two days, two drachms of the tincture of colchicum in three doses, and was cured immediately. The same journal reports the case of a physician, confined to bed for a month by the gout, and who drank a tea-spoonful and a half of the wine of colchicum in mint-water. At the end of two hours the fit was so well removed that he could mount on horseback.

Haden extols the colchicum as a substitute for bleeding in inflammatory diseases. He also ascribes to it great efficacy in nervous affections. Thirty drops of the tincture every eight hours, cured hysterical fits in a young woman*. Chaumeton says that the Turks procure a kind of exstastic intoxication by means of the wine of colchicum†. According to the report of Dr. Gumper, frictions with the tincture of colchicum had great success in rheumatism and gout, in the case of a priest fifty years of age, confined to his bed for six weeks, and who was cured by the fifth day. As for my own experience, I employed it without success in the case of M. de Bret, of the Institute, the venerable

* *Bibl. Medic.* vol. 40.

† *Flore Medic.* vol. 3.

author of the "Grand Voyage Pittoresque et Historique au Brésil." I enveloped the gouty foot with compresses of flannel, soaked in the tincture of the bulb of colchicum; but I did not know at what season the plant had been taken up; nor, consequently, what confidence it merited.

Dr. Chelius expressed a conviction that the urine of individuals who made use of the preparations of colchicum, contained a greater proportion of uric acid; which explains the relief they afford in gout. Professor Lobstein, of Strasburgh, confirms this fact by his authority*.

I am far from guaranteeing the authenticity of these marvellous cures performed on the other side of the Rhine and of the Channel. My eyes ought to have seen them in order to remove all doubt from my mind. But still I may ask, have we not less reason at this time of day for saying that gout is an incurable disease? If so, we may venture to console a very considerable portion of the intellectual and wealthy classes of mankind; these being the exclusive victims of that cruel disorder.—*Journal Hebdomadaire.*

Académie de Médecine.—The Plague.

M. Gueneau de Mussy read a report on the work of M. Simon, of Hamburg, relative to the contagion of the plague. The author gives his theory on the subject; thinks that experiments on it would be more dangerous than useful; and declares himself in favour of sanitary precautions.

M. Chervin maintained that experiments were the only means of determining the question, but thought they should be conducted on a large scale. The Lazaretto of Marseilles appeared a very proper place for their performance.

M. Rochoux.—The author has done nothing more than revive the superannuated theories of Frascator. He has not got into the current of modern facts; for the plague cannot be assimilated to cholera, with respect to contagion, even in places of the greatest filth and poverty. Of this the author is ignorant. Experiments are made every day on a great scale, through the medium of merchandize. The Pacha of Egypt, for example, during the last epidemic, sold his

cottons at a low price to the English, who carried them away without any ill effects.

M. Chervin.—Lazarettos have existed since the fourteenth century; but this has never prevented the invasion of various epidemics of the plague; and it never could be discovered how they gained admission. Preventive measures, then, are illusory. We have no examples of the porters employed in handling the bales contracting the disease. If they have had ulcers, it was owing to the injuries received by plunging their arms into the ill-packed bales, and because ulcers are common in the South. Never has a ship from the Levant transported the plague into England; for the sick who may have contracted the disease (at Smyrna, for example), die or get well during the voyage; and there the mischief ends. M. Chervin detailed the injury done to commerce by sanitary laws; and concluded by saying that the author of the paper appeared to belong to the dark ages.

M. Gueneau de Mussy disclaimed all responsibility for the opinions of the author, on whose work he would not have reported, had it not been for the courtesy due to a foreigner.

Creosote.

M. Martin Solon made a report of various communications relative to Creosote. The commission has tried this medicine in chronic maladies of the skin, indolent ulcers, cancer, hæmorrhage, phthisis, &c., and has come to the conclusion, that though sometimes useful, it is often without any favourable effect; and even when it appears to be attended with good results, it is not preferable to other means with which we are familiar, and which are less disagreeable to the patients. Its only well established advantage is that of preserving, very well, anatomical preparations plunged into a weak solution of it: a more economical means than many others.

M. Andral confessed he had obtained no other than negative effects from the employment of creosote in the treatment of phthisis, of cancer, and of leucorrhœa.

M. Emery had uniformly seen it produce a troublesome irritation in lupus, chronic ulcers, lepra, eczema, phthisis, &c.

M. Pelletier observed that it was incorrect to say that it might be freed from its disagreeable taste and odour; for that would be

* Kunh, Dissert. sur les Colchicacées.

to destroy its properties. Charlatans might avail themselves of such an assertion.

M. Velpeau had employed the creosote, without any favourable result, in burns, and in indolent, scrofulous, and syphilitic ulcers. If weakened, it is an excitant. If used in its pure state, it is a caustic, possessed of no superiority to other substances of the same kind. It was far, therefore, from meriting the praises bestowed on it.

The conclusions of the commission were adopted by the whole of the Academy. M. Comac was against presenting thanks to those authors whose works had no other effect than that of sanctioning errors. MM. Moreau and Girardin spoke to the same effect.

—o—

Artificial Anus.

M. Amussat was lately called by M. De-neux to a female child, several days old, which had passed nothing from the bowels. The anus and vulva were present, but both opened into the vagina; and injections through the anus returned by the vulva. This is an extraordinary conformation, of which authors (according to M. Amussat) report no examples. After long and minute investigations, the finger, introduced into the vagina, detected, at the level of the sacro-vertebral articulation, a moveable body, which was recognized as the termination of the intestine. Immediately a transverse incision was made behind the anus; and from the middle of this incision another was made towards the coccyx. Through this wound (which was in the shape of a T), the finger was introduced; and gliding along the sacrum, it arrived at the extremity of the rectum, destroyed its adherences, and brought it to the incision, where it was opened and fixed by sutures, in such a manner that the mucous membrane passed beyond the level of the skin. From a neglect of this precaution, in operations of this kind, the little patients have perished in consequence of an infiltration or effusion of stercoraceous matter into the cellular tissue of the pelvis. Here the success was complete, and promises to be permanent. During the twenty days which had elapsed since the operation was performed, the infant has continued well. M. Moreau observed that sufficient time had not yet elapsed to insure the

patient's safety, children having sunk after operations of this kind at a more distant period.—*Journal Hebdomadaire.*

New Caustic for the Treatment of Cancerous Diseases.

This new therapeutic agent, first proposed by M. Recamier, and of which he is now making very beneficial use in the case of many patients under his care, at the Hôtel Dieu, is *aqua regia* holding in solution a certain quantity of the chloride of gold. The following is the way in which M. Recamier was led to make trial of this new preparation:—

A goldsmith had a small cancerous tumour on the cheek. This tumour, the nature of which admitted of no doubt, excited uneasy sensations, which induced the patient to put his finger to it. After repeated touches of this kind, at the time the artist was dissolving gold in *aqua regia*, the aspect of the tumour was perceptibly changed; and at last it completely disappeared.

M. Recamier, attentive to these phenomena, immediately suspected the cause of the amelioration, and determined to ascertain if the cure of this cancerous tumour was not to be attributed, as he had presumed, to the application of the *aqua regia* containing gold in solution, and conveyed by the finger dipped in the solution. He did not delay making trial of the caustic in the case of a female, who had an ulcer on the neck of the womb, with hard, uneven, and ragged edges. The general symptoms left no doubt of the carcinomatous nature of this ulcer, which had destroyed a great part of the neck of the uterus. Lancinating pains in the hypogastrium, and uterine hæmorrhages, attested the progress of the disease, which, however, was put a stop to by seven or eight applications of the caustic above mentioned. The general symptoms disappeared, and both touch and examination by the aid of the speculum, proved the healing of the ulcer, and the removal of swelling in the body of the uterus, which existed at the time the employment of the caustic was commenced. Several other patients are under treatment in St. Paul's ward, at the Hôtel Dieu, and the result of whose cases we shall make known at a future period.

This caustic is made with six grains of the

chloride of gold, dissolved in one ounce of nitro-muriatic acid. It is used in the same manner as other caustic liquids, by dipping into it a piece of lint held with a pair of forceps, and cauterizing the surface of the diseased parts. The cauterization should be deep, and should give rise to the formation of an eschar, which is detached at the end of three or four days. After it has come away, we repeat the operation six or eight times, according to the extent of the ulcerated surface, and the depth of the disease. The application of the caustic is not at all painful; its action is altogether local; and in both these respects it offers incontestible advantages.—*Journal de Chimie Medicale.*

Herbivorous Man.

Several cases collected and detailed in the annals of science, have already proved that man, in a state of extreme hunger, and deprived of every ordinary kind of food, can maintain himself exclusively, either with marine plants, or with herbs and flowers, or lastly, with the leaves of trees, eaten in a crude state. This faculty results chiefly from some points in the organization of the human race, and which appear to enable it to choose its food from animal and vegetable substances indifferently. These points comprise the form of the teeth, the form and motions of the temporo-maxillary articulations, and the structure of the digestive canal, which is longer than that of the carnivora, and shorter and smaller than the alimentary tube of the herbivora. We are indebted to Doctor Layet for a new case of an herbivorous man.

Antoine Julian, born at Nice, and residing at present in the department of the Var, was subjected in his youth to such a degree of privation, as to be forced to resort to the mastication of leaves and crude plants, in order to make up for the deficiency in his food. But that which was at first but a kind of addition to his nourishment, soon became the only food he relished; and at the end of some months, Julian no longer ate any thing but raw vegetables, with the exception of three or four ounces of bread, and a little wine, which he sometimes added, but which he could do very well without. His stomach accommodated itself without inconvenience to this singular regimen, the

digestion of these unaccustomed aliments going on perfectly, and his strength and general health increasing in a remarkable manner.

The following are the plants to which Julian ordinarily resorts for his repasts:—*poterium sanguisorba*, *trifolium arvense* and *pratense*, *scorsonera pierioides*, *hieracium præmorsum*, *saturcia montana*, *ancethium foeniculum*, *senecio vulgare*, *fumaria officinalis*, *salvia officinalis*, *parietaria officinalis*, *triticum frumentum*, *avena sativa*, *agrostis vulgaris*, *dyanthus caryophyllus*, *anthemis nobilis*, *artemisia ponticum*, *apium petroselinum*, *vicia faba*, *ranunculus ficaria*, *rumex patientia*, *raphanus sylvestris*, *dipsacus fullonum*, *plantago lanceolata*, *sinapis alba*, *souchus oleraceus*, *leontodon taraxacum*, *brassica oleracea* and *naprees*, *bellis perennis*, *sinara scolimus*, *medicago sativa*, *cardus lanceolata*, *convolvulus arvensis*, *balsamita suaveolens*, *thymus vulgaris*, *pinus sylvestris*, *myrtus communis*, *hedera helix*, *cistus monspeliensis*, *rubus fruticosus*, *rosa gallica*, *citrus medica*, *rubia peregrina*, *quercus robur*, *arundo donax*, *olea europea*, *laurus nobilis*, *rosmarinus officinalis*, *jasminum officinale*, &c.

Julian has also sensations more or less agreeable, according to the species of herb he consumes; and this has led him to divide the plants which constitute his food into three classes. In the first, he places the orchideous plants, the *laitron*, the *pimprenella*, the *trefoil*, *vine-leaves*, *potato-leaves*, *oak-buds*, *mulberry-leaves*, and those of the *burdock*, the *thistle*, the *rose-bush*, &c. These plants particularly please his palate.

The second class, comprehending those plants which yield him only moderate enjoyment, includes the leaves of the wild carrot, of the cultivated turnip, of fennel, of the cabbage, of the common bramble, of the wild rocket, of pellitory, &c.

In the third division are found the leaves of the pines, of the rock-rose, of the white oak, of the green oak, of the rosemary, of the olive, of the box, &c. These afford no other pleasure to the individual in question, than that of satisfying his appetite.

Julian is distinguished by a good disposition, mild and compassionate; and his manners are quiet and simple, although

his intellect is sufficiently developed. His slumber is peaceful and light, like that of most of the herbivora; the lightest and most distant noise being sufficient to interrupt it. The cutaneous sensibility is not great. Cuts and excoriations do not occasion to him the sharp and sudden pains which they give to others. On account of this want of sensibility, he does not fear the cold, when every body around him complains of it bitterly.—*La Lancette Franc.*

—o—

The London Medical

AND

Surgical Journal.

Saturday, November 14th, 1835.

MEDICAL RELIEF OF PAUPERS—THE POOR LAW AMENDMENT ACT.

THE subject of parochial relief to the sick poor has been taken up in a proper spirit by both our weekly contemporaries. The able exposition of Ruricola in the Times Newspaper of November 2, has placed in a striking point of view the imbecility, to use no harsher term, of those who framed the clauses of the new poor law act which relate to the medical care of paupers in the country. The evils of the old system were obvious, though the remedy for them was less so; the new arrangements have merely had the effect of increasing existing evils, and adding considerably to their number—the only good resulting from them being the exclusion of improper objects from parochial assistance. Under the old system the number of parish surgeons was insufficient, so that it was impossible for them to fulfil their duty, however desirous of doing so; the remuneration likewise was so miserably small as to offer no inducement to exertion, even if there had been more likelihood of rendering it available; the patients were moreover subjected to great inconvenience, to loss and to dangerous delays, from the distance which they had to go to seek for advice.

Under the present system, the disproportion between the number of

surgeons and of patients appears to be still greater, and the remuneration offered to the former is so utterly insignificant that it becomes ridiculous, nay insulting; it would have been far better to put the thing to the benevolence and generosity of the younger practitioners of a district, and ask them roundly to look after the sick poor gratuitously—a very modest proposal certainly, but one which is cheerfully acceded to by the medical officers of dispensaries, to the great satisfaction and also amusement of the charitable, who smile with Christian amenity at the disinterestedness of the doctors, and with mundane facetiousness at their gullibility. In the old state of things we well know that the salary of a parish surgeon in the country was often barely sufficient to pay his tolls in going to visit the patients; but now he must not think of having his turnpike expenses covered, all his *fees* (!) will go to the blacksmith for shoeing his horse. The evils resulting to the paupers, from their distance from the surgeon's residence, are in a great measure irremediable, and are indeed experienced to a certain extent by the rich as well as the poor in country places; but even these evils have been multiplied with reference to paupers by the new regulations, since they have now not only a journey to fetch the surgeon, but another to get permission to do so. In the above-mentioned respects, therefore, the new poor law act places both patients and doctors in a worse predicament than they were before. But several evils of great magnitude, unknown to the old system, are created by the new. The pauper may not only have to go or to send a weary distance for the order which entitles him to medical advice, but he may be refused it after all, and a person entirely ignorant of medicine is to decide whether he stands in need of it or not! And since the surgeon is now paid, not so much *per annum*, but so much *per case* economy is

very likely to supersede humanity, and an order only to be granted when the necessity for it is too obvious and distressing to be called in question.

Trifling cases will of course not be heeded. For example—an aged patient, apparently in good health, presents himself with a dark spot merely, on one of his smaller toes, and complains of pain in his foot: “Why, you foolish old fellow,” quoth the man of charity, “how could you think of coming all this way about such nonsense?” The old man returns home and shortly after dies of senile gangrene. A rosy-cheeked buxom-looking girl comes and complains of a beating at her heart: “Pooh! The wench is in love; go about your business, you idle hussy—go, go, go!” She goes, and a little while after dies of hypertrophy. A person presents himself complaining of a continued pain in his head: “Nothing else, my friend—only a pain in your head?” “Nothing else, sir.” “Well, well, you’ve got a head-ach, what of that, it will go away, and so may you:” within a fortnight he dies of chronic phrenitis. A pretty set of practitioners too, the poor are likely to have to attend them. The place, refused indignantly (at least we hope it will be so) by all the respectable practitioners of a neighbourhood, will be filled at best by a raw lad who has just been *rhobarbarised* at Black-friars, and too frequently by some needy adventurer, some scamp who has left his creditors in the lurch, or eloped to escape the ignominy of his disgraceful conduct. We are seriously apprehensive that the new medical arrangements in the country may militate against the cleanliness and salubrity of the metropolis, by diverting some respectable persons from the contemplation of a *broom*, to that of a parochial surgeoncy in a desirable neighbourhood; though they can only be attracted by the *honour* of the thing, in as much as the deterrent branch of business is by far the more lucrative.

Half-a-crown for attending a patient for any time less than twelve months, and supplying him with all necessary medicines, apparatus, &c.!

Medical practitioners of England! Who has exposed you to such insult as this? *Yourselves!* Here you may see some of the fruits of the *gratuitous humbug*. This is what comes of gratis attendance at hospitals and dispensaries: if doctors value their own services at nothing, half-a-crown per annum is surely a very liberal consideration, and the Solons of the poor law amendment act may well expect to have statues erected to them, in lasting memorial of the benefits they have conferred on the profession.

We sincerely hope that no English surgeon will henceforth be found wicked enough, or mean enough, to lend his aid to a system at once so oppressive to the poor, and so degrading to medical men—a system which we call on our brethren throughout the country to resist, to combine against and to overthrow—it is in their power to overthrow it if they please.

—o—

MANUAL OF OPERATIVE MEDICINE.

BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

CHAP. II.—Of Operations practised on the Epidermis, or the Art of Chiropodism.

1. *Corns of the Feet—Anatomy.*—A corn is an excrescence shaped like a nail, the point of which is buried in the deep layers of the epidermis, sometimes even through the dermis—to as far as the periosteum or articular capsules (Dudon). Independently of such cases, which are not frequent, if we soak the skin well which supports the corn, the latter becomes detached of itself, and the surrounding epidermis appears sound and in a normal state. Corns seem to be formed of a concrete mucus, which easily imbibes liquid with which it may be placed in contact, and becomes softened in various degrees. We find in it neither vessels nor nerves. Laforest has met under some corns a serous cyst or a sanguineous extravasation.

There are three methods of operating, 1st by *Excision*. The epidermis and the corn are to be softened by means of a foot-bath.

Then the surgeon, with a curved bistoury steeped in water or olive oil, and held *en dedolant*, peels away the upper and central part of the corn until a red tint and the production of pain indicate the impropriety of excavating it further. He then parts the edges of the corn in the same manner, taking care not to intrude upon the skin. If in the centre of the corn several black or white points should be observed, it will be requisite to endeavour to raise them with the point of the bistoury. If a cyst or sanguineous extravasation be met with, this should be freely let out. 2nd. *Cauterization*. It has been advised to cauterize a corn with a bit of inflamed wood (Avicenna), or with a drop of melted sulphur (G. de Chauliac). Laforest applies spiders-web to the corn, lights it and leaves it to burn as *innoxia*. 3. *Extirpation*. If the corn be recent and superficial the common mode of proceeding is sufficient, namely to soak the foot for some time and then scrape it gradually with the nail or the point of a knife. For severer cases the following is the method adopted by Dudon. The foot is soaked for some hours before the operation; then the patient being seated in a convenient posture and good light, the chiropodist receives the foot on his knee, which is covered with a napkin, and proceeds to pare the corn with a sharp knife. Then he scratches round its circumference with a pointed bodkin called a *quadrille*, in order to separate the epidermis. He next proceeds with delicate forceps to lay hold of the corn and extract it, taking great care not to produce much pain or bleeding, in case of which, the finishing of the operation must be postponed for a week. When the corn is extracted the foot is to be again bathed. The parts above the corn now form a white and spongy swelling, which must be dried and shaved slightly with a cutting instrument. If pain continues, and we should perceive a brownish spot about the size of a pin's head at the bottom of the excavation, it may be touched with nitrate of silver.

2. *Of Callosities and Bunions*.—Callosities are mere thickenings of the skin; a bunion is a corn with a large base, presenting layers of epidermis, arranged like the layers of an onion, and adhering to the skin at several points. We may rasp them with pumice-stone, shagreen-skin, or a fine file; or they may be extracted by the means just indicated; but it is not usual to do more than pare off.

3. *Of Warts*.—*Anatomy of a Wart*.—If we cut one vertically we find it formed, 1st, by thickened epidermis; 2nd, by the chorion equally thickened and sending, into the thickness of the epidermis, prolongations which are named the roots of the wart. Sometimes these prolongations pass to the outer surface. Black points are often seen; Cruvelhier has once seen considerable-sized vessels following, in the form of bands, the

prolongations of the dermis. There are five methods of operating, 1st, by *ligature*. When the root has a narrow peduncle it may be tied tightly with horse-hair, silk, or thread waxed. 2nd, by *cauterization*. A drop of nitric acid may be dropped from the end of a pen, or the nitrate of silver applied. Dudon, in some cases where they were largely developed in the sole of the foot, and impeding walking, removed them quickly by caustic potass. 3rd, by *tearing out*. They are to be sucked some time with the mouth, till they become soft and prominent, when they may be torn out with the teeth (Galen). 4th, by *excision*. They are cut off, layer by layer, with a knife used *en dedolant*, and the bleeding arrested with cobweb. 6th, by *extirpation*. With the point of a bistoury the wart is to be circumscribed by two small semi-elliptical incisions, and their extirpation may be finished either with the same instrument or with a pair of curved scissors. Excision with nitrate of silver is very generally successful.

4. *Of Ampullæ*.—When the skin is fine they may be opened with a lancet; when hard a knife or the scissors may be used, and a portion cut away.

5. *Collections of Pus under the Nails*.—The nail is to be scraped as thin as possible with a piece of broken glass, and then opened with a lancet—the same method serves to extract splinters, &c.: extravasations under the nail may always be left to absorption.

6. *Enlargement of the Nails*.—The nails of the first and second toe have been known to grow to the size of a hazel-nut (Laforest). Rouhault has seen one four inches and a half long, and proportionately thick; they may be filed or cut down with a clock-maker's saw. Dupuytren excised them with cutting forceps.

7. *Of Nails burrowing in the Flesh*.—*Anatomy*.—Sometimes the nail becomes devious and plunges into the flesh, and even goes so far as to cause ulceration of the neighbouring toe. Sometimes the flesh is folded over the nail by the pressure of over tight shoes. In both cases, in the course of time, the nail becomes curved on one side, and the portion that is embedded in the flesh produces strangulation of the neighbouring tissues. There are several methods of procedure. Dionis files away the middle of the nail, so as to divide it into two halves, and in order to push the two parts together interposes charpie between them and the flesh. M. Faye bores a small hole in each half of the nail, and passes through both a metallic thread, which he twists like a ligature. M. Guilmot removes by very fine lamellæ, and without tearing one-third or one-half of the nail on the sound side, and, according to him, this is sufficient to retract in this direction the portion which has been buried in the flesh. Desault, who believed the curving of the nail to be essentially a diseased action, invented a process for re-

forming it. He made use of a tin plate about 18 lines long, 3 or 4 broad, the extremity of which, slightly curved, he introduced between the nail and the flesh. In this manner he raised the former and depressed the latter, which was previously guarded with a compress smeared with cerate. Then curving the tin plate from within outwards, so as to embrace the bulging formed by the flesh, he fixed it in its position by rolling a bandage round the great toe. Fabricius ab Aquapendente tore out the carneous portion of the nail. He cut the free portion with the scissors, and then tore up the diseased portion with a pair of pincers. He did this without much violence, and therefore had to repeat the operation during successive days. Dionis did the operation at once, with a bistoury or scissors. He ordered the bath previously, to soften the nail, and he cauterized the flesh afterwards if necessary. M. Dupuytren passed the point of one blade of a pair of scissors, well sharpened, rapidly down the root and divided the nail into two equal halves, then he seized the offending portion with a dissecting forceps and tore it away by twisting it upon itself. The Arabs, according to A. Paré, and recently Lisfranc, Brachet, and Levrat-Perroton, have removed the flesh, the former with the knife, the two last by means of caustic. All these means are merely palliative in many cases, because frequently the source of the deviation of the nail is in its matrix.

8. *Destruction of the Matrix of the Nail.*—This operation, which has been advised for the affections just mentioned, is restricted by M. Dupuytren to cases where there is some alteration in the matrix. His method of operating is as follows:—The foot being held with the left hand, a deep semicircular incision is to be made with a straight bistoury, about three lines above the apparent origin of the nail; then the flap is to be raised with forceps, and all the skin surrounding the root is to be detached together with the nail itself.

Another, and more expeditious proceeding, though not so sure, is to take the knife in the whole hand and shave off matrix, nail, &c., at once, like a shaving of wood: whichever operation be practised, it is essential to remove carefully all white and fibrous parts that may be seen at the bottom or in the corners of the wound, for we have seen such rudiments neglected, and they have reproduced the nail and the disease. If the matrix only be removed, the rest of the nail will always perish and fall off spontaneously.

9. *Exostosis of the Distal Phalanx of the Great Toe.*—An exostosis of this kind, which raises the nail, deforms it, and renders walking painful, is often mistaken for the preceding diseases. It is pyramidal in shape, soft and spongy interiorly, and on the outside covered with a thin compact layer. M. Dupuytren makes on each side of the

nail a semicircular incision, which insulates the tumour. This he cuts from its base with the bistoury, or, if necessary, the chisel and mallet, avoiding, if possible, the matrix of the nail.

(To be continued.)

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Fractures of the Spine—Fracture of the Sternum—The Fourth and Fifth Dorsal Vertebrae—Third and Fourth Ribs—Rupture of the Gall-bladder—Concussion of the Brain—Clinical Remarks, by Mr. Cooper.

FRANCIS RANDALL, aged 22, was admitted about eight in the evening, on the 16th of October, under Mr. Cooper, having fallen from a considerable height. There were several marks of injury on the spine, the sternum was fractured across its middle, and the upper fragment projected a little forward. A vein had been opened in the arm, but no blood flowed*; pulse small, slow, and easily compressed; pupils dilated and immoveable; there was slight strabismus, and insensibility. A small quantity of wine or some other cordial or stimulant was given, and warmth applied to the feet.

At 10 P. M. the pulse was 66 and small; skin cool. He talked incoherently and did not answer questions. The strabismus was gone and the pupils active. There was paralysis of the lower extremities.

17th.—He has quite recovered from the state of depression or collapse, and is now quite sensible and rational; the bowels have not been moved; a few ounces of bloody urine were drawn off with the catheter; there was constant vomiting of bilious fluid; pulse becoming more frequent. The effervescing draught, with five drops of the tinct. opii were given every-hour, and a bandage applied round the chest.

18th.—Sickness stopped, bowels not moved, pulse 100, and feeble; pain in the chest from cough; breathing very difficult. On raising the patient for the purpose of applying a bandage round the chest, the dorsal vertebrae were observed to bend very much outwards. There was great oppression of breathing and faintness, which continued till half-past two P. M., when he died, thirty hours after his admission.

Autopsy.—There was fracture of the sternum and of the bodies of the fourth and fifth dorsal vertebrae, also of the spinous processes of several of them. The condition of

* The attempt to bleed this patient was made before he was sent to the hospital. The danger of bleeding patients in a state of collapse, cannot be too strongly enforced on practitioners called to accidents of this kind.

the spinal chord was not ascertained. There was effusion of blood into the cellular tissue, between the sternum and pericardium; also effusion of bile into the abdomen, resulting from the rupture of the gall-bladder. There was also fracture of the third and fourth ribs, near their tubercles.

—
Fracture of the Cervical Vertebrae—Death in Twenty-four hours.

Thomas Robinson, aged 21, was admitted, November 2nd, under the care of Mr. Cooper, having been struck on the back of the neck by the fall of a heavy piece of timber a short time before his arrival at the hospital. He was perfectly sensible—his pupils active; indeed, there was no symptom of any injury of the brain. The upper and lower extremities were so completely paralyzed, that they gravitated in any direction. All sensation was lost in the lower extremities, and in the trunk as high up as the middle of the chest; also in the arms, excepting from the point of the shoulder, down as far as the elbow; there was also priapism and emission of the seminal fluid. Respiration was imperfectly performed, being short and hurried. There was considerable pain in the back of the neck, but no crepitus could be detected. It was, however, quite evident that the cervical portion of the medulla spinalis had sustained severe injury; the skin was rather cold, the pulse 60, and feeble; warmth was applied, and hot tea given to him. Mr. Cooper saw the patient three hours after his admission.

3rd.—The skin was now warm, the patient had had no sleep, pulse and respiration more accelerated. He was placed on his side at his own request. There was no contraction of the abdominal or intercostal muscles in respiration. As no evacuation had taken place from the bladder or bowels since the accident; eight grains of calomel followed by some of the senna mixture were prescribed; but the last was rejected from the stomach. A catheter was introduced, and about a pint of urine drawn off. He died about 24 hours after the receipt of the injury.

Autopsy.—Several of the cervical vertebrae were found injured; the right articular process was detached from the body of the third. The left arch of the fourth was broken, but not displaced. The arch of the fifth was much comminuted, and the spinal cord exposed and pressed upon. The body of the same vertebra was also broken through, and the sharp edge of the fracture had caused copious extravasation behind the pharynx, in front of the vertebral column.

Mr. Cooper, in lecturing on these cases, made the following observations:—In the first case, he considered that the wound of the gall-bladder alone would have proved fatal had no other injury existed—he believed there

was no case on record in which recovery, after such an accident, occurred. With regard to the vomiting, it is frequent in concussion when the patient begins to recover; it is generally considered a favourable symptom, from the fact of its indicating returning sensibility. In this case, however, the injury was too complicated for any hopes to be entertained from such a symptom; indeed, it is probable, that had the patient lived a short time, inflammation of the brain had come on. It was worthy of notice, that in fractures of the sternum there is always a cough, which is generally attended with pain. Now, with regard to fracture of the vertebrae in general, he might remark, that where there was fracture of the lumbar vertebrae, the following symptoms presented themselves—paralysis of the bladder, loss of power in the lower extremities, and involuntary discharge of the fæces. If the accident occur to the dorsal vertebrae, all the above symptoms are present, with the addition of a torpid state of the bowels, and a considerable accumulation of wind in the abdomen; there was also priapism in some cases, but that is a symptom more frequent in fracture of the cervical vertebrae, as one of the above cases illustrated.

When the injury occurs in the cervical vertebrae, and the medulla spinalis is injured, there is generally paralysis of the upper as well as the lower extremities; this happens more particularly if the fracture occurs above the fourth cervical vertebra. The patient in the second case, you will observe, had sensation from the point of the shoulder to the elbow, but there was entire loss of motion even in that part.

Sir A. Cooper observes, that when the fracture is oblique, and occurs in the fourth or fifth cervical vertebra, and the medulla spinalis is only partially injured, the paralysis may be complete or not, according to the extent of injury the medulla has received. The case in question is interesting, from the fact of the fourth cervical being broken without displacement. Had there been displacement, the man would have died on the spot; this, Mr. C. would scarcely say ensued, because the injury occurred above the origin of the phrenic nerve, the only agent in supporting respiration. Now, most of the cases on record, as dislocations of the spine, are in fact merely fractures attended with displacement; very few cases of dislocation are recorded as happening below the vertebra dentata, without fracture; most of these cases are dislocation of the articular surface on one side from that on the other.

Mr. C. remembered, however, one remarkable case, which was taken to the Middlesex Hospital; it was that of a man who was driving an omnibus through a gateway which was not high enough to admit him, and his head came into contact with the top of the gateway and completely dislocated the fourth and fifth cervical vertebrae, without fracturing

them—the preparation from this case was to be seen over the way.

If the medulla spinalis is injured, what can be done? Why, very little, where the accident occurs so high up as in the above case, and yet, to look at the patient, whose countenance is generally of a healthy appearance, you might at first believe he would live for a length of time; he is, however, sure to perish. Sir A. Cooper remarks, that in cases where the fracture takes place between the fourth and seventh cervical vertebræ death takes place generally in about five or six days—our patient, you will observe, died in twenty-four hours; the period of death, however, generally depends on the amount of injury the medulla spinalis has sustained, and also on the kind of constitution the patient has.

Now, in cases like that of the first patient we have mentioned, should the pulse be high, blood may be abstracted from the arm, but he thought with Sir A. Cooper, any attempt at reducing the fracture is totally useless, for if the medulla spinalis is injured, no good results from such a step. Attempts, however, of this kind have been made; a case is recorded in the Medico-Chirurgical Transactions, in which a surgeon succeeded in procuring union in a case of fracture of the last dorsal vertebra; the patient lived some time afterwards, and died at last of another disease. On the post-mortem examination it was found that the bone was not united in apposition, but bent rather forwards; this case confirms Sir A. Cooper's opinion.

Mr. Cooper differed, however, from Sir Astley in considering that sawing away part of the neck of the spinous process, elevating it, and removing the pressure from the spinal marrow, could be attended with any benefit. The operation had been attempted both by Mr. Cline and Mr. Tyrrell without any successful result.

If a patient lives some time after fracture of the lumbar, or dorsal vertebræ, when there is paralysis, your treatment will tend to rectify every kind of inconvenience resulting from the injury—to attend to the state of the bladder; after a month it was to be remarked, that incontinence, instead of retention of urine might supervene—attention was also to be paid to the involuntary discharge of the fæces, or sloughing might result from the mischief they might produce in the neighbouring parts. Cases are recorded, in which patients partially recovered, but afterwards perished of gangrene, occurring in the parts on which they lay.

Would strychnine do any good in cases of fracture like the above? It is surely worthy a trial.

There is a preparation in the Hunterian collection, of injury to the dorsal vertebræ, in which the patient lived two or three years—on a post-mortem examination, the vertebral passage was found almost obliterated, scarcely allowing a small probe to pass. Yet, this

patient could, with assistance, come down stairs.

—o—

WESTMINSTER HOSPITAL.

Hydrocephalus Acutus, occurring as a Sequel of Scarlatina.

THOS. DUNBAR, aged 16, was admitted Oct. 13th, into King William ward, as a patient of Dr. Roe's. He is short-necked, and rather of a plethoric habit. Four weeks before his admission he had an attack of scarlatina, from which he became convalescent in a fortnight, so as to be able to return to his employment. In the course of a few days, however, anasarca made its appearance, first in the face and neck, and afterwards in the legs, to such an extent that he could not get his clothes on. The dropsical symptoms were a good deal subsiding, and his mother recollects his reading the day before his admission. On the morning of the 13th, he awoke with severe pain in the head, especially in the region of the temples, which caused him to cry, and his sight was affected in such a manner as to prevent him seeing to dress himself. Whilst waiting in the out-patient's room to be admitted, he was seized with a convulsive fit, not having had one before, which recurred with great frequency and violence upon his removal to the ward. During the paroxysms, there is involuntary expulsion of the fæces and urine. In the intervals he lays in a moaning and stupid state, from which he is only with difficulty roused, when a reply is wanted to any inquiries. Pulse 160, full and strong; tongue furred; exhibits signs of uneasiness on pressure being made on the abdomen; there is likewise some impediment to easy respiration.

V. S. C. B. ad. $\frac{3}{4}$ xvj.

Appr. Emp. Canth. Sterno. Abradatur Capillitium, et admoveatur constanter Lotio Evap.

14th 9 A. M. The nurse reports that he had several fits during the night. He now lays in a completely insensible state, grinding his teeth and moaning. The axes of the eyes do not appear to correspond exactly, and the mouth is slightly drawn to the left side. The right leg was not thought to respond so readily to stimuli as the left. The eyelids are kept constantly closed; the pupils are somewhat contracted.

App. Cucurb. Cruent. Nuchæ, et detract. Sanguinis $\frac{3}{4}$ x.

Rx. Mist. Diaphoretic $\frac{3}{4}$ j. 3 tis horis.

4 P. M. Much better; he answers questions, states that he does not possess any trace of vision, except so far as enables him to distinguish light from darkness. Has only had two fits since the cupping, and these were transient ones. The grinding of the teeth is gone, and he now enjoys a good degree of quiet repose.

15th. Is much better, has had no fit in

the night, and only a slight one this morning. He has regained the power over the sphincters, and has had several motions as the effect of a saline cathartic which had been administered to him. There does not appear to be anything like hemiplegia to-day, or if so, of a very indistinct character. The pulse is not so frequent nor full; he does not complain of much pain, except from the blister: has regained complete vision.

16th. Has now no pain remaining in the head, and he is evidently better: pulse 120, small. There is a good deal of œdema of the right upper eyelid, and also of the right hand. It appears that he has not yet such complete power in grasping in the right as in the left hand, but there does not now seem to be any lesion of sensation. He only had two fits yesterday, in one of which the excretions were expelled.

18th. Appears almost well; there are no convulsions, nor pain; pulse regular, and reduced in frequency; tongue cleaner.

27th. Has continued to go on well since last report, and now appears quite convalescent, except that in his general position of standing, his right arm hangs somewhat more motionless by his side than the other, and that the foot of the same side drags a little in walking. The shade of difference between the two sides, however, is so trivial that it is not perceptible to all the observers of the case. He was dismissed to day as cured.

Caries of the Atlas and Vertebra Dentata, with Abscess behind the Pharynx.

Anne Josey, aged 16, was admitted August 22nd, into Percy Ward, under the care of Mr. Guthrie. The complaint arose five months ago, after exposure to a draught of cold air, in the shape of a painful stiff neck, which at first affected the right side, but after some time became most severe on the left. This gradually got worse, up to the period of her admission.

Sept. 4th. There is great pain in the neck, with swelling, especially on the left side and towards the nape. The head is bent downwards and towards the left side, the face looking to the right, apparently in consequence of the contraction of the sternomastoid and other muscles supplied by the spinal-accessory nerve. There is paralysis of the upper extremities of both sides, both as regards motion and sense. The paralysis does not appear to extend to the lower extremities, nor is there any loss of power in the sphincters. The urine is sometimes retained, requiring the use of the catheter; there is a great deal of diarrhœa. The muscles of the face and jaws are affected with painful spasmodic affection resembling trismus; eyes prominent, pupils dilated; anorexia; tongue red; pulse accelerated, and other febrile symptoms.

The left arm was first affected with the

paralysis, and it is now œdematous, and on its surface presents several round or oval, elevated and circumscribed spots, some of them as large as a halfpenny. They have a reddish and inflamed base, and appear to consist of an elevation of the cuticle, occasioned by the presence of lymph in the areolæ of the so-called rete-mucosum of Malpighi.

She died on the 6th of September.

The autopsy revealed the existence of an abscess behind the pharynx, containing healthy pus, and involving the substance of the longi colli muscles. It was lined by a very thick velvety membrane, and extended from the base of the skull to the fourth cervical vertebra. The anterior arch of the atlas, and the body of the vertebra dentata were in a carious state, and the odontoid process was broken off. The membranes of the spinal cord opposite the diseased bones, did not present any unusual vascularity, but were slightly thickened. The spinal cord was somewhat compressed and darker in colour at this point. The brain was healthy; the other viscera were not examined.

—o—

CÆSAREAN SECTION FOURTEEN MONTHS AFTER CONCEPTION—RECOVERY.

THE history of the following case was read before the Medical Society of London on the 19th of October, 1835, by Mr. Hutchinson, and we extract the most important part of it:—A woman, aged twenty-eight years, of good constitution and lively disposition, had been married eleven years without having had offspring. The menstruation was normal until August, 1834, when it ceased, and she considered herself pregnant, a conclusion at which her medical attendant had also arrived. The uterus enlarged more rapidly than usual, so that in the middle of September the abdomen was "of a very great size." During the next month, the movements of the fœtus were felt, and from that period continued to increase. At the end of April the woman was seized with labour pains, but these ceased, and in two days afterwards the movements of the infant were no longer felt. The abdomen increased in size, and the legs became œdematous. On the 14th of June the symptoms were emaciation, countenance not unhealthy, pulse 100, tongue clean, bowels sluggish, pain in the lower part of the back in the erect position, and a great sense of suffocation in the recumbent. On making vaginal examination, the canal was shorter than natural, and its sides were compressed by the protrusion of a large tumour, occupying a portion of the pelvis, situated between it and the rectum, and the os uteri was indistinctly felt, the fundus being turned downwards and backwards, and the orifice being behind the pubis. On the 8th of July, Dr. F. Ramsbotham saw the case, considered it ovarian dropsy, and advised

paracentesis. On the 12th, Dr. R. and his father met, and the latter considered the disease ascites, with ovarian enlargement. Both advised the operation. It was performed on the 15th, about two inches above the umbilicus, in the linea alba, at which part the tumour was most prominent, when about six pints of dark chocolate-coloured fluid escaped, possessing a disagreeable but not a fœtid odour. The patient experienced considerable and almost instantaneous relief. At the end of a fortnight the opening had not healed, and a lock of fœtal hair escaped through it, and other pieces, as well as globules of oil; and portions of putrid skin and membranes repeatedly passed through it. A hard circumscribed tumour was now distinctly felt in the left hypochondrium, which was evidently caused by a fœtal head. In September the symptoms became aggravated, and there was increased constitutional irritation. A consultation was held, at which the former gentlemen and Mr. Mayo assisted, when the latter and Mr. H. agreed that the infant ought to be removed by the Cæsarean operation. Mr. Hutchinson then (September 21st) proceeded to perform the operation by enlarging the wound made by the trocar, both upwards and downwards, to the extent of five inches. Mr. Mayo extracted the right upper extremity in a transverse direction, which required amputation at the shoulder; a foot and the trunk followed, but the head was too large to be extracted through the wound entire. The funis was divided and left hanging out of the wound. The placenta was adherent and was not removed. Simple dressing and a poultice were applied to the wound, the inferior of which was left open, to allow the escape of any fluid "which might still remain in the cyst." The fœtus was as large as at the full term of gestation, and the cuticle was entire, except on the scalp. On the 25th the placenta was removed through the aperture, and appeared as if macerated for a long time in water. On the 19th of October the wound had closed, except about half an inch in length, and the patient appeared to be in a fair way of recovery. Thus the fœtus was retained five months longer than the usual period, and removed by gastro-hysterotomy fourteen months after conception.

—o—

Sulphuret of Potash in Asthma.

AN individual labouring under a severe attack of spasmodic asthma, applied to Dr. Carusi, who having ordered the aqua lauro-cerasi, internally, and frictions with tartar emetic ointment, without success, directed sixteen grains of the sulphuret of potash, rubbed into potash with honey. This quantity was divided into four portions, one of which was given three times a day. After the administration of the last dose, the asthma entirely disappeared, and the cure was complete.

Asphyxia of Infants in Pedal Presentations.

M. BAUDELOQUE has saved two infants whose bodies were born first, and whose heads were retained for a considerable time, by introducing into the mouth a silver tube of sufficient size to allow the ingress and egress of air into the lungs for respiration.

—o—

Natural Philosophy, arranged according to the Plan of Napoleon.

M. GEOFFROY SAINT HILAIRE announced to the Academie des Sciences, that during his residence in the country, where he was detained on account of bad health, that he had completed a work, the manuscript of which he presented, entitled *Synthetical and Historical Opinions on Natural Philosophy*. It is, he observed, in a great part, the development of an idea of Napoleon at the age of fifteen years; an idea on which he loved to discourse with his soldiers, the literary characters, poets, and savans, who accompanied him in his military excursion to the East. The work contains three chapters—1st, Documents on the subject of Universal Law; 2nd, Notions of Zoologic Philosophy, acquired during the last five years; 3rd, Entomologic Philosophy.

—o—

Dr. Ryan's Lectures on Obstetrics will be commenced in a fortnight, when some of the plates, which are splendidly executed, will be finished. This series of plates will amount to sixty, and illustrate the Anatomy of the Pelvis, Ovology, Natural and Difficult Parturition, and all Obstetric Operations. They will be the most extensive illustrations of obstetric medicine hitherto published in this country; and, with the Medical Botany, offer advantages to the profession which no rival journal affords. The plates in one volume could not be had separately for much less than the price of the letter-press.

This Journal will also contain condensed Reports of the cases, Medical and Surgical, with the substance of the Clinical Lectures of the Physicians and Surgeons of the North London Hospital. We select this hospital in preference to others, because there is much more attention paid to clinical instruction in it, than in any other in this metropolis.

We also hope to be able to lay some of the Dublin hospitals under contribution. Dr. Fletcher's Lectures will be resumed in a short time. The Foreign Department will be conducted in the same extensive manner as hitherto. Reports of Societies will also be given. The Review Department will embrace all new and important works, both national and foreign.

—o—

CORRESPONDENTS.

J. T. C.—Dr. Elliotson's Remarks on Lepa Syphilitica are unavoidably omitted this week.

A Gerrard-street Pupil.—We must decline interfering in personal disputes.

London Medical and Surgical Journal.

No. 199.

SATURDAY, NOVEMBER 21, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

BY JAMES MANBY GULLY, M.D.

LECTURE XXIII.

Treatment of Gastro-Enteritis.

ENTER we now upon our treatment of this important disease. In the commencement, when there are only symptoms of gastric disturbance, we do not give an emetic because, though it may occasionally cure, it more generally does harm. If the patient is plethoric and, together with his gastro-enteritis, has congestion of the head or chest, we bleed him, and on the same day, or even at the same hour, apply leeches to the epigastrium, according to his strength—from three for a child of from one to three years of age, up to sixty for an adult. For old persons the number is smaller: yet we must not act blindly in regard to them. Most persons, and especially young ones, have generally a false idea of old age; they imagine that every man that has white hair and some wrinkles is in a state of debility; but attention should be paid to the consistency of the flesh, to its nutrition and to their complexion; when it is firm, highly coloured, and well nourished, it matters not whether the hair be white or black: you may bleed. But when the individual is emaciated, and worn, as is more frequently the case—for a man rarely passes his fiftieth year without having some internal enemy, some *lethæis arundo*, that undermines him, or, to speak without figure, some chronic affection that deteriorates his nutrition, and to which an acute one has been superadded—such an individual, I say, should not be so boldly bled as a fresh subject unaffected by any previous disease.

After the leeches have fallen the bites should be allowed to bleed and poultices applied to facilitate it. The disease is frequently stopped by these first applications; the patient recovers his appetite, and might possibly be able to renew his functions; but

be not too hasty in giving food. We should ever have before our eyes the manner in which inflammation is developed, and remember that there is almost invariably a point where inflammation has reigned some time in a latent condition, and whence it has made an irruption. Even in the latter case, by keeping the patient on strict diet for a few days, both the old and the new points of irritation come round. Sometimes the phenomena of gastric irritation are renewed on the following day: the frequent pulse reappears, as well as the foul mouth, disgust, nausea, turgescence of the epigastric region, bilious regurgitation, &c. All these symptoms leeches will dissipate as completely as an emetic, and without the danger attendant on the latter.

It has been asserted that the bilious element said to exist in this case had such reality as to refuse to yield to antiphlogistic treatment. This is false: thousands of these bilious elements are cured by leeches. In this particular, both experience and reasoning are with us, the latter informing us, that if there be bile in the stomach, it is an irritation that induces it there, and that this irritation may be got rid of by leeches. Should they be insufficient, and should the symptoms reappear, the general bleeding must be repeated; at the same time mild drinks and clysters must be prescribed. If diarrhœa supervenes, leeches should be applied to the anus. Frequently vomiting, bad taste of the mouth, &c. coexist with the diarrhœa; in this case leeches to the epigastrium relieves the gastric disturbance, and one to the anus stays the diarrhœa: if you only apply leeches to the anus the gastric symptoms continue, and the same obtains for the diarrhœa if you only attack the epigastrium; both points should be simultaneously attacked.

If taken in time, these different cases may be acted on successfully; and when the contrary occurs, it is owing to the prolonged duration of the supposed prodroma, that is to say, the disease has been neglected and the irritation of the digestive canal not sufficiently rapidly subdued. You then have bilious, or mucous, or inflammatory fever; that is to say, in the first case, increased frequency of pulse, tongue more or less red,

burning thirst, debility, &c. In the descriptions of bilious fever that are given, you will find burning thirst, frightful headaches, occasional bilious dejections, a burning sensation, alternations of cold and heat, &c. These symptoms, which have procured for bilious fever the name of ardent fever, may be subdued as they appear, the headach by a bleeding of the jugular or cephalic vein, the heat and cold, as also the burning thirst, by bleeding the epigastrium; meteorismus and intestinal pains, yield to the same means if used in time. In the event of the disease not being completely obviated, the inappetence, thirst, nausea, &c. before described remain behind, but gradually dissipate.

If the disease be not annihilated, but becomes more intense, the nervous symptoms come on, and you have then the proof that the mucous membrane of the digestive canal is deeply implicated and that the gastro-enteritis has become typhoid.

These various windings of the disease are exceedingly remarkable. Among the patients under it you may observe three chances: some are cured, others remain in a feebly characterized febrile condition, and others again are seized with nervous phenomena. Let us now see what treatment should be pursued in these two last categories, commencing with the last but one, or that in which the fever continues without nervous phenomena. What should you do, after you think you have sufficiently reduced the patients? You should remain quiet, give mild drinks, and observe whether anything peculiar or prominent appears. You will find in authors that eurodynia, diarrhoea, and dysuria are symptoms of mucous fever; these symptoms shew that the phlegmasia is partaken in by mucous membrane of the lungs, of the great intestine and the bladder, in which organs you ought to combat it. When headaches supervene you should order pediluvia and apply leeches to the jugular or the temples. When diarrhoea is present give amilaceous clysters with a few drops of laudanum, or a decoction of poppy heads: should it persist, cause revulsion to the lower extremities with some stimulating tincture, with tartar emetic ointment and sometimes with blisters; but upon no account give strengthening soups, for if you do you will lose two-thirds of your patients. You are not to consider these symptoms as necessary attendants of gastro-enteritis, and you are bound to destroy them in detail as they present; just as an able general endeavours to prevent his enemies from uniting, and to attack them *seriatim*, the more certain to vanquish them; in this manner gastro-enteritis of moderate character, or such as have only produced slight disorganization, are brought round to convalescence.

As for those that are too serious when they are first presented to you, that have had protracted prodromata, that have been exasperated by stimulants, that are accom-

panied with nervous phenomena, and constitute our third category, you must not expect to cure them by sanguineous emissions; for ulcerations, softenings, and erosions then exist in the digestive canal, and require a long time for the cure, as is the case when the same disorders exist in the skin. During the time that nature is contriving their cure, and so long as the disease is not arrested, there is a febrile state, and some nervous phenomena: the irritation is repeated in the brain and spinal cord, and there is more or less stupor, subsultus, &c. The disease therefore is necessarily long, but simply because it was not stayed at the onset. Now, how will you manage these circumstances? As long as the stupor, redness of the eyes, tremor of the limbs, brown colour of the tongue, &c., persist, you must give no stimulants, and should administer the lightest drinks, slightly sugared or feebly acidulated water, gum or marsh-mallow water, orgeat, &c., in small quantities; and you should order ice to be taken, especially in summer. Generally when leeches have been employed in sufficient number there is not much thirst: and on this account you should not gorge your patients with drinks, for you will thereby give them fits of indigestion. Young physicians, who take pleasure in being exceedingly attentive to their patients, and who thirst for improvement, would do well to pass entire nights with them: they will thus learn to judge of the progress of the disease, and appreciate the effects of the remedies. I have seen pupils who had doubts of the truth of what I advanced, because of my opinion after having passed a few nights with patients whom they dosed with cinchona; they were converted when they beheld the body tremble, the muscles agitated, the pulse contract, a sweat cover the whole body to be followed by dry skin, when, in short, they saw all the symptoms exasperated after the administration of the remedy in question. They were convinced that whatever reaches the stomach is echoed throughout the system when the nervous papillæ of that organ are stimulated. During this period, therefore, you should only give mild drinks, and, if there be diarrhoea, emollient clysters, with fomentation of the abdomen. I herein suppose the period for bleeding to be past, for when there are nervous symptoms you can scarcely ever think of it.

When, by these means, the patient seems to arise from the night of the tomb, when he smiles, when his mouth ceases to bear a crust, and his breath to be fetid, his eyes again become moist, when he no longer thirsts but hungers—the physiological physician may render certain his safety, while the ontologist kills him by his haste to give food. But be you firm to your method; the amelioration shews that the phlegmasia of the gastric region has given way, and that a

degorgement has at the same time occurred in the head. Still there may be a considerable disorganization in the small intestines; continue, therefore, your remedies, and if you see this better condition, persist for two or three days, when the diarrhoea ceases, the meteorismus disappears, the pulse slackens, the strength revives, &c., you may begin to nourish, although there may be still some fever; you may give him a little chicken broth, milk and water, or slightly milked tisane—drinks which the ancients were in the habit of giving at the onset, and during the most acute period, as antiphlogistics.

I have lately administered cold clysters in gastro-enteritis in the nervous stage; when I could not venture to bleed I gave them with some benefit; but when there was ulceration and the disease serious, I ceased their use, being afraid of inciting either peritonitis or catarrhal complication: this treatment however requires great nicety.

Blisters and revulsives I have been obliged to give up in the majority of cases, because I feared either the absorption of the cantharides, or the influence of the cutaneous phlegmasia. However, I think I have seen cases where they might be useful, when, for instance, the patients have been freely bled and the skin is cold. Last month we had a man affected with such an intense gastro-enteritis that it might have passed for a case of epidemic cholera. During eight days we in vain strived to warm him: he vomited, was purged, had suffused eyes, and was truly *cadaverize*. An application of leeches to the epigastrium put a stop to the vomiting, and the same to the anus arrested the diarrhoea. Subsequently some leeches applied to the throat having produced no effect, we stimulated the skin with blisters and continued friction, and after combatting the cold surface and contracted pulse for a whole fortnight we had the satisfaction of curing him. When, therefore, there is no heat of the skin, when you think you have bled sufficiently, and there is concentration about the head, blisters may prove useful. All means, however, may be good, and there is none that should be absolutely condemned.

Such is the march and treatment of gastro-enteritis independent of all complications. To the latter we now proceed.

Peripneumony requires greater perseverance—in general sanguineous emissions as well as local bleedings over the engorgements of the pulmonary parenchyma.

Cystitis requires the application of leeches to the hypogastrium, the root of the penis, and the perineum.

With hepatitis you should not persist in the use of emetics and purgatives, but in sanguineous depletions over the region of the liver and the edges of the ribs.

The principal complication is the cerebral affection, and this you should well understand. If it occurs in the commencement,

when the subject is full-blooded, a general bleeding should be had recourse to, and, if insufficient, leeches should be applied along the course of the jugulars and on the temples.

The indomitable thirst, and the burning heat of the skin require acid drinks and external cold, not in the shape of ice, but of cold fomentations. If it be a hot summer, you may apply heat to the head, the abdomen, and even to the chest; but if the weather be cold and humid, or only temperate, as in the spring and autumn, or if you are operating on feebly reacting individuals, or of lymphatic or catarrhal constitutions, with hearts and lungs disposed to congestion, cold may determine peritonitis, catarrh, carditis, &c., that end in death in twelve or twenty-four hours. Energetic means, such as it should always be employed, with some anticipation of what may ensue on them.

External phlegmasia, about which the ancients made a deal of noise in reference to their crises, and which the moderns have revived in the same point of view, ought, they say, to be respected. This must be *physiologised*. At first sight it might appear that a serious internal disorder, that becomes transformed into an external disease, is not a thing to be afraid of, and that the physician's part is reducible to inspecting its progress, awaiting the formation of pus, and cicatrising the ulcer. But this question must be divided, and we must in the first place refer to our principles, which are not vague, but always resolvable into, or applicable to, facts. Inflammation, in whatever part situate, if too extensive, always produces disorder in the system. If a critical phlegmon be too intense, you must expect that it will renew the internal phlegmasia that has just been got under, or some other; and you must reflect that your patient, who is no longer so strong as in the commencement of the disease, having contracted a secondary phlegmasia by means of this supposed critical phlegmon, may probably sink under it. In the next place, the critical deposit may take place in important organs, for the preservation of which, the patients would readily give, as indeed, themselves say, many pounds of blood. To give instances: an inflamed parotid, say you, is beneficial when it suppurates. Yet if the inflammation be too intense, it may induce a fatal cerebral congestion. It is then clear that you must reduce this inflammation, and though the patient may be two or three weeks longer in gathering strength, you must take his blood from him if necessary; besides which, you have revulsion, sinapisms to the legs, &c., that prevent the extension of the inflammation to the brain. Secondly, an eye is implicated: do you mean to say that you would hesitate to apply twenty or thirty leeches around it in the fear of retarding convalescence? do you

think that a pretty woman would reproach you with a retardation that has been the means of saving her eye? Thirdly, an abscess of the anus, that might pass into a fistula unless you hasten to cure it. Do you not think there is some use in annihilating it, or at least, if you do not succeed in that, in managing to prevent more extensive mischief and sloughings? The application of what I here state concerning these inflammations, is so extensive, that I may spare myself and you more ample details; but you may observe how much the precept of the ancients requires to be modified.

Now of hemorrhagic crises. These frequently occur in the height of gastro-enteritis, when patients are in extreme prostration. Is it proper to favour them? That will depend on the seat of the hemorrhage. When it proceeds from the intestinal surface, and passes by the anus, it is not proper to allow it to proceed. I have often seen patients die from the consequences of those hemorrhages: they call for the close-stool, fill it with blood, and die upon it. When you behold hemorrhage going on in a weakly subject from an extensive surface, and that it may proceed without the possibility of your perceiving it, you have good right to tremble for the life of your patient; you must not then trust to antiphlogistics. In such cases I produce a powerful revulsion to the skin by blistering; I give clysters of solution of soda and yolk of egg, or even make them somewhat astringent. In some years gastro-enteritis are more hemorrhagic than in others; one of these was the year 1813, when the hemorrhages I observed in the army were frightful, and carried off great numbers; but I succeeded in saving many by means of rice water acidulated with sulphuric acid, and the application of a large blister over the abdomen.

Nasal hemorrhages are more commonly seen, especially in the spring and summer. However great the adynamic state, you have rarely anything to fear from it. Possibly the cerebral congestion, of which it is the index, may not be sufficiently diminished by it, or in other terms, that more blood reaches the head than there is from the nose; in which case you must have recourse to pediluvia, sinapisms, and acidulated, emollient, and cooling drinks. But how will you know all this? what signs are there to guide you? if the pulse is strong, the coloration of the face great, if the pulsations of the carotid and temporal arteries are violent, notwithstanding the hemorrhage, put leeches on the throat, and then cause revulsion to the lower extremities. If, on the contrary, the circulation is feeble, if the blood which the patient loses is decolorized or impoverished, do not bleed, but be content with revulsion to the hands and feet. Plugging is rarely applicable.

The crisis of diarrhoea should not be respected beyond two or three days. The

matters retained during the whole course of the disease may be expelled by a kind of effort accompanied with colics, and there may be a watery evacuation, which ceases after two or three days; but should it exceed that term, it signifies a phlegmasia that should be attacked by sanguineous emissions, emollient, narcotic clysters, and external rubefacients.

We read in Hippocrates, that during the course, and at the close of fevers, frightful and gangrenous erysipelas, with denudation of the greater part of the limbs, supervenes. I was struck with this fact when reading the epidemics of the father of medicine, and I saw that at that period, when the sciences were in their birth, this man of conscience and genius having no sufficient motives for action, confined himself, in the majority of cases, to observing, to hastening the termination of diseases, and to the employment of minor remedies, and that in this manner, when inflammation proceeded to the exterior it was so violent that extreme disorder followed upon it. Here, then, we return to our principles—we who think that the disease should not be allowed to be too intense at the onset, and that, if not called in at the very commencement, it is dangerous to allow a critical phlegmasia to proceed far, the more as it may produce extensive sloughings. If you observe a critical phlegmasia manifesting itself simultaneously with the internal phenomenon of an intense phlegmasia, you must have recourse to local bleedings to prevent the phlegmonoid state and consequent sloughings. If, on the contrary, it is exhibited in individuals that have already been treated in an active antiphlogistic manner, and if the redness tends to traverse the skin, it must be combatted by astringents, such as the acetate of lead, or by the nitrate of silver. Last year we had a consecutive erysipelatus epidemic at Val-de-Grâce, and I acted as follows, always starting from positive principles. If the subject had not been extensively bled, and the pulse was vigorous, I applied leeches and emollient fomentations: if the erysipelas was feeble, and the patient weak, I employed astringents and sedatives. Generally speaking, these kinds of erysipelas are far from being invariable; they are seen in persons in whom the gastro-enteritis is exceedingly obstinate in certain portions of the canal, though not sufficiently intense to produce the adynamic state; or when the gastro-enteritis, after bringing them to that state, allows of the relation with those around them, though it continues of sufficient intensity to cause partial disorganization of the digestive canal. Inflammation has infinite shades, as varied as the countenances of patients. There are gastro-enteritis that lead to adynamy, and others that do not: you have some that deceive you: the stomach of your patients seem to be re-esta-

blished, they are hungry, you allow them to eat, an erysipelas comes on, then hectic fever, and they die; others have boils and small abscesses that are multiplied, with increased frequency of pulse; in four or six weeks they sink into a state of consumption and marasmus. All these are diversified states of the same disease, a disease that you can only learn to comprehend in all its aspects by sound clinical teaching and the guidance of sound principles. Without these what can you do? Of what use are eighty-four cases of typhus, and the entities you extract therefrom, compared with the millions of individuals and different susceptibilities that people the world, and the millions of as varied diseases that depopulate it?

Reasoning must be applied to medicine, and the hope of expelling it is a vain hope: you reason in spite of yourselves. And when you behold an erysipelas supervening before the antiphlogistic treatment has been employed, or after the application of leeches, whose bites have been a starting point to it, you say, here is a complication: the patient has or has not appetite, he is weak or he is not, he has more or less frequency of pulse, he has or has not diarrhoea, &c.: you practise the medicine of symptoms: you treat erysipelas, according to your idea of it, either by the nitrate of silver, the acetate of lead, willow-bark decoction, &c.: the patient hungers, you give him food: he is purged, you give him opiate clysters, keep up his strength, &c. In all this you reason, but you reason falsely. What you ought to say is, this man has in his intestines a focus of phlegmasia, which is the cause of the erysipelas that appears in the skin; he must be kept to strict diet, to saccharine, gummy and lacteous drinks, or to very weak soups; his erysipelas must be treated on two very opposite principles, by antiphlogistics and emollients, if there be great intensity, or by astringents and caustics if there be but little. But never lose sight of the irritated digestive canal. If this same man has diarrhoea and inappetence, it is proof of an intestinal inflammation not yet terminated; for the small intestines are, as you know, long, and inflammation often traverses their entire extent, and remains obstinate in the large intestine.

Sometimes you behold a patient three-fourths cured of gastro-enteritis, who is attacked with erysipelas or boils. Now, to kill this patient, the inflammation must be renewed in the digestive canal, must be there generalized, or he must be exhausted by diarrhoea, or a peritonitis must supervene, or a cerebral congestion must arise, so difficult is the destruction of man in some instances. Ah! if the physician were always capable of appreciating morbid phenomena, and could modify them at his will, how few of his patients would die! But he is crossed by a thousand circumstances, too long to enu-

merate, and which you will not be happy enough to avoid in the course of your practice.

I pass to the use that has been made of stimulants internally, stimulants such as bark, camphor, wine, serpentary root, &c. I am aware that there are instances of cure by these means; but here is the place for taking account of and employing the numerical method, it being always understood to be applied to well-observed facts, without which none but false results would be got. If, then, a number of patients that have been stimulated in gastro-enteritis be compared with a similar number that have not been stimulated, the mortality among the former will be found to be four times greater. This I assert conscientiously. I think the calculation should be made by hundreds, especially in serious cases. Then, if it be required that I should give an account of the manner in which these have been cured, and the state of health of the patients after their cure, it will be seen that they have escaped the disease and the treatment by crises, that is to say, the irritation that has been produced in the digestive canal by stimulants, lights up the entire system, excites the circulation, forces the action of the secretory and exhalant organs, and gives rise to profuse hæmorrhages, to sweats, to external phlegmasia, &c.; whilst among those thus cured many go on with shattered health, remain with chronic gastritis or duodenitis, or in a state of incurable nervousness, &c. This is what I had in some measure discovered at the time I was only beginning the physiological reform, and I have since confirmed it by an immense mass of facts; for you can have no idea of the number of hypochondriacs who each year come to consult me, and in whom I detect a neuropathic condition that dates eight, ten, or fifteen years back. By questions I most commonly discover that they have had malignant fever that has been treated with stimulants; and this is the solution of the enigma. This, however, refers to the neuroses, which we have not yet reached: I will only make the passing remark, that it is very easy to accumulate sensibility in the digestive canal—a proposition that might make a good subject for a thesis. In general, if you stimulate a surface of relation that is rich in nervous papillæ, you communicate a degree of susceptibility to it that is truly horrible, and such susceptibility becomes a source of incessant perturbation to the system, that renders existence miserable. This is more particularly remarked in the digestive canal, independently of the consequences that inflammation may produce there, and which frequently prove fatal. Patients treated with stimulants in gastro-enteritis too frequently retain these susceptibilities.

A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By William Stoker, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

(Continued from page 492.)

FOR a fuller description of the epidemic of 1831 than would be compatible with the space that remains, I must refer to the medical report from the Cork-street fever hospital for that year, and to my Comparative View of Cholera, published at the close of it. In the former of these publications, the epidemic of 1831 is thus described: "Its characteristic symptoms are great depression of spirits, irregular, small, and sometimes intermitting pulse, *tongue seldom dry*, but loaded with a viscid mucus, bowels torpid, *alvine evacuations, abounding with diseased fetid mucus, and deficient in bile, brain seldom engaged.*"* The following specimens are extracted from my Comparative View. (See Appendix, Note D).

December 8th, 1831.—Deborah Deane, ill six days of severe cholera, which commenced with painful and violent spasms in the trunk and lower extremities, with vomiting and purging of turbid serous gruel-like fluid, and attended with extreme debility. The surface everywhere cold, features shrunk. Her symptoms were quickly subdued, chiefly by a mixture with compound spirit of ammonia and camphor, and on the 9th December she was convalescent.

December 13th, 1831.—Charles Kelly, aged 70, ill seven days, of cholera, which commenced with violent pains in his stomach, and spasms in his legs, accompanied with vomiting and purging of gruel-like fluid, and extreme prostration of strength; his face and hands shrunk and blue; skin cold and clammy; no pulse at the wrist; voice scarcely articulate; lower extremities dark blue; spasms and a painful sense of stricture over the belly and chest. By the aid of frictions, warmth, and camphorated mixture with ammonia, which were remarkably successful in this case in producing reaction within its proper bounds, he was considerably improved. On the next day, inflammation of the lungs set in, which required bleeding, and the blood was slightly buffed, an event which often takes place after crises in fever, though it had not previously. His recovery from this time was progressive, and he was dismissed from the convalescent ward a few days afterwards. It was chiefly with a view to such cases as

this that I was led to recommend a more ready admission to the hospital than in ordinary times, and no part of the cholera regulations, afterwards published at the suggestion of Drs. Russell and Barry, appear to me more likely to save life than those which enjoin ready admission of those who sought it, and the conveyance of patients in an horizontal posture. As may be seen in the report of 1823, I urgently recommended such regulations.

The next table, taken from the journals I kept during my bimestral attendance, ending 4th February, 1832, includes those two months in which I first witnessed sporadic cases of epidemic cholera, approaching, on the one hand to the distemper of 1823, and on the other to the aggravated form it afterwards assumed in 1832, 33, and 34:—

Number in Cholera.		Died.	
Male.	Female.	Male.	Female.
10	35	6	12
Delirium Tremens.		Died.	
Male.	Female.	Male.	Female.
3	2	1	1
Typhus and Synocha.		Died.	
Male.	Female.	Male.	Female.
14	25	1	1
Phthisis.		Died.	
Male.	Female.	Male.	Female.
3	23	1	9
Inflammatory Fever.		Died.	
Male.	Female.	Male.	Female.
6	22	0	0
Rheumatism.		Died.	
Male.	Female.	Male.	Female.
10	54	1	0
Scarlatina.			
Male.	Female.		
2	5		
Small-pox after Vaccination.			
Male.	Female.		
1	4		

Besides those cases enumerated in the foregoing table, there were some nondescript or simulated, making the whole number that passed under my care during those two months, 60 males and 204 females, of whom 8 males and 16 females died. On the last day of that attendance 12 males and 42 females remained, some convalescent, and others still labouring under acute or chronic complaints, one only, of the latter, a female, had symptoms of cholera. The average mortality was 1 to 10. And it may be observed here that this as well as the general mortality in the hospital at that time, far exceeded that on the total at the close of 1830, which was scarcely 1 in 18. This difference itself indicated clearly the unusual severity of the epidemic; but the following report of some of the fatal cases in those two months, further shows what the epidemic truly was:—

* See Medical Report of the Fever Hospital and House of Recovery, Cork-street, for 1831. By P. Harkan, M.D.

† See my Comparative View of Cholera. Published January 30, 1832.

December 3, 1831, Anne Keogh, aged 20, some time in hospital, states that her illness commenced seven weeks ago with purging, vomiting, cramps in her bowels and calves of her legs. Although now somewhat relieved by chalk mixture, prescribed on her admission, yet is still distressed by diarrhoea: alvine evacuations, frequent and like thin rice gruel; skin cold, voice and pulse feeble, countenance shrunk. Under the use of various remedies, this patient continued for several days alternately better and worse, and was at length sent to the convalescent ward. There, in a few days, she suddenly relapsed into the most malignant form of cholera morbus, and died five hours afterwards: the body and extremities having become purple for some time before death*.

January 1st, 1832.—Brian Brady, aged 50, had been attacked six days before with vomiting, purging, and cramps in the belly and legs; on the 22nd December, he was admitted, and gradually recovered. But on the 7th of January he suddenly relapsed, in the course of the morning, with purging and vomiting of gruel-like fluid, which ceased in the afternoon. The skin was at that time cold, moist, and blue; his breath was cold, eyes hollow, and features contracted; no pulse perceptible; spasmodic pains in his belly and legs; no urine passed for eight hours, nor was there apparently any secreted, as the bladder was empty. No interruption of the mental faculties. Notwithstanding the employment of cordials, friction, and warmth, he died at six o'clock the same evening, about seven hours from the commencement of his last attack. On the succeeding day, the body was rather less purple, and had the appearance of being dead some days, as was usual in such cases. This too, as is well known, was constantly observed in fatal cases of cholera, after that disease had been officially announced in Dublin†.

January 7, 1832.—Patrick Dargan, an habitual drunkard, was admitted. He had laboured for seven days under cramps in his belly and legs, attended with great prostration of strength. At the time of admission, however, these symptoms had abated, and he was then principally affected with stricture and pain of his chest, especially at the region of the heart; his appetite was keen, pulse full and strong, skin warm. Under the employment of suitable remedies, particularly venesection and aperients, and a

mixture with ammonia, he gradually improved; but on the 12th, at 9 A.M., he was suddenly attacked with mucous purging, and at 11 A.M., with pain and spasm through his whole body, with constant writhing of his limbs, skin cold, shrunk, and livid, hands and lower extremities remarkably so, and partially occupied with extensive ecchymoses. The eyes, naturally prominent, were then hollow, and his countenance was pale, collapsed, and anxious; no pulse could be felt at the wrists even after warm drinks and warmth had been employed. These symptoms I have been thus particular in stating, as a very unfortunate difference of opinion arose between me and my colleagues, Drs. O'Brien and O'Reardan, who with Mr. Hale and Mr. Lawless, at my request, had seen the case. It was one of those cases I wished to be examined before and after death, and compared with those reported from England and the Continent; but my colleagues did not agree in these views, and both the Boards of Health and the Managing Committee were opposed to it. Not only was my proposition rejected but, wholly for proposing investigation, with a view to public safety, I have been since unrelentingly persecuted. Although very active treatment was adopted in Dargan's case (as ordered in full consultation), death took place seven hours from the period of the relapse. About half an hour after death, Dr. William Stokes inspected the body along with me, and the most remarkable circumstances then to be observed were the constriction of the abdominal muscles, the livid hue of the skin, and ecchymoses on the elbows and lower extremities. From such appearances, as well as the report the nurse gave of the symptoms and sudden death, Dr. Stokes expressed it as his opinion, and afterwards promptly repeated it in a letter to me, that the case appeared to him to resemble, and that he would pronounce it malignant cholera, if he had not on other occasions witnessed as sudden prostration of strength, and as sudden dissolution follow perforation of the intestines. He also joined with me in regret that the regulations adopted by the Managing Committee of the hospital opposed my urgent request of *post mortem* examination, to decide the nature of this interesting and important case—one, I certainly believed, of vital importance to the public at that time.

But the following table of admissions and deaths, constructed from the annual reports of the Managing Committee of the Cork-street fever hospital, being necessary to bring this sketch to the termination of the proposed period, and in willing compliance with a request by Henry Warburton, Esq., M.P., the able chairman of the Parliamentary Committee of Inquiry on Medical Education, I add it. Besides it affords valuable evidence on the important and still unsettled question in hand, whether the epi-

* This and five other cases which relapsed in the convalescent ward at the same period are detailed from the 16th to the 22nd page of my Comparative View, already adverted to in the text.

† In the manuscript accompanying the report of the months of December, 1831, and January, 1832, six other fatal cases of cholera and fever, in a severer form, were detailed.

demic constitution which has so repeatedly produced such dreadful effects in Great Britain and Ireland since 1832, was then the result of newly imported contagion *sui generis*, so as to be productive of disease, requiring distinct and separate modes of prevention and cure? or of atmospherical distemperature, producing an aggravation of disease to which it had previously approximated, and, therefore, requiring no more than active employment of the remedies previously in use?

Table of admissions, deaths, and average mortality, annually, in the Fever Hospital and House of Recovery, from 1831 to 1834½, inclusive.

Years.	Admitted.	Died.	Average mortality
1831	3602	307	1 in 11
Total for 28 years. }	88190	5659	1 in 15
1832½	3991	290	1 in 13
Total for 29 years. }	92181	5949	1 in 15
1833½	3332	293	1 in 11
Total for 30 years. }	95513	6242	1 in 15
1834½	4524	422	1 in 10
Total for 31 years. }	100037	6664	1 in 15

Comparing the average mortality in each of the years, in the above table, with that which occurred previously, the disproportion is very remarkable, especially in those years, during which restrictions on the admission of the malignant forms of the epidemic already referred to, was less rigidly enforced. On the other hand, comparing this with the statistical tables inserted in former pages, for the last fifteen years, it appears that the mortality in 1823, 24, 25, 26, and 27, when pestilence raged with characters in many respects resembling those in the last four years, was very nearly the same. But I cannot enter further, at present, on this important question. There is, however, an additional array of facts to illustrate it in a pamphlet I published on the subject, at the close of 1831, to which I beg leave to refer those not yet fully decided. There is also a memorial connected with that pamphlet which I presented in 1835, first to the King and Queen's College of Physicians in Ireland, and subsequently to the Irish government, praying of the former, adjudication, and the latter an impartial investigation, not less with a view to promote public security, than to obtain that justice which is the birth-right of every man.

A few abridged cases from the medical report for the year 1832, and there given as specimens of cholera morbus epidemic in that year, will assist, I hope, to settle this important, and to me anxious question, which, though it may have lost some of those features which excited universal panic at the

time I first proposed investigation, for the purpose of reducing it to its just proportions, yet must be still deemed deeply interesting, if the average mortality in hospitals in the current year, and the frequency of sudden deaths amongst all grades of society, be duly considered, with a view to the future, either as regards prevention or cure.

Case of Epidemic Cholera, No. 1. (See Medical Report for 1832, p. 18).

Bridget Kirwan, aged 60—seized April 10, 1832, at two o'clock A.M., with severe vomiting and purging. At five o'clock P.M., countenance collapsed and pale generally; eyes sunk; a livid circle around them; cheeks, naturally florid, inclining to blue colour; no pulse at the wrist; feeble in the carotid arteries; extremities quite cold and livid; voice nearly extinct; body cold; hands and feet shrunk; the discharge from the stomach dark-coloured and muddy, with a tinge of white: no urine passed for six hours, feet and legs affected with painful spasms. This train of symptoms, not seen before by the author of the report in question, he announced the case to be epidemic cholera. By friction and dry heat to the extremities, large sinapisms to the centre of the body, both before and behind, and two grains of calomel, and a quarter of a grain of opium, given every half-hour, with a spoonful of a stimulant mixture of compound spirit cardamoms and aromatic spirit of ammonia, the pulse and voice were restored, the vomiting and purging were checked, and the lividity of countenance disappeared the same evening. The patient was able to sit up in bed on the succeeding morning: she and her friends ridiculed the alarm of its being a case of cholera. The patient, however, relapsed on the next day, and died that night.

Case II.—R. W., aged 50, an embarrassed tradesman, attacked on the 27th April, 1832, after slight indisposition for two days, with sickness at stomach and severe vomiting; two o'clock, P.M., countenance pointed and pale; eyes sunk and languid; pulse quick, feeble, and irregular; skin soft and clammy, but warm; voice languid but distinct; constant painful spasms in the feet, and backs of the legs; no discoloration of the skin; tongue pale and shrunk. The author of the Report for 1832 pronounced this also a case of spasmodic cholera, which the patient's friends did not credit. The patient died within ten hours from the attack, notwithstanding the sedulous employment of the same remedies successfully administered in the case of Bridget Kirwan (No. I). The rapidity to a fatal termination, the intensity of the spasms, and the character of the pulse, left no doubt in the reporter's mind as to the real specific character of the disease. The two other cases of recovery, given in the same report, as specimens of epidemic

cholera, differ so little from the foregoing either in symptoms or treatment, that it is only necessary to refer to them as given at the 21st, 22nd, and 23rd pages of his report*.

In concluding this section, I have to offer as an apology for so superficial a survey of the many important subjects it embraces, that the original design of submitting this sketch to be read at a meeting of the College of Physicians, and of the British Association, in Dublin, necessarily restricted it. Besides, the want of free access to those medical records I in vain sought from the managers of the Cork-street Hospital, materially interfered with the execution of my task, especially on the leading question. These deficiencies, however, I hope I shall be enabled under the sanction and support of the parliamentary committee of inquiry, and its excellent chairman, Mr. Warburton, to amend at some future period. There are other reasons, however, which lead me further to regret being compelled to curtail or crush those illustrations of the pathology of the blood, which my experience enabled me to collect. The experiments of Sir D. Barry, MM. Magendie, Gaspard, and Orfila, had already extended these illustrations, and by comparing them with the experiments of Drs. Morgan and Addison, and with the able paper read by Dr. Macartney, at the last meeting of the British Association, at Cambridge, and his experiments on the nervous system, then detailed, I am sure sound pathology might have been greatly promoted.

(To be continued).

—o—

Observations on the Classifications, Etiology, Pathology, and Treatment of Diseases of the Skin, according to the most celebrated Authors of Ancient and Modern Times.

NOTWITHSTANDING the many instructive works which have appeared on diseases of the skin, a very small proportion of medical practitioners pay little, if any, attention to the subject. These diseases are, however, of daily occurrence, and ought not to be excluded from the study of pathology. They have been considered to be involved in obscurity, though there is no class of human infirmities whose characters and signs are more easily appreciated. The multiplicity of these diseases has discouraged the study of their nature, and has led to the most opposite classifications, as I shall speedily prove. The errors in classifications have very powerfully contributed to throw much difficulty on the study of cutaneous diseases, and they are as numerous as the authors who proposed them. The truth of this statement will be manifest on the perusal of

the following historical sketch of the best authors on this class of diseases. I cannot help observing that it is pleasing to know that the classifications of Willan and Bateman are most generally adopted, and are those of the most popular French writers, (Baron Alibert excepted), of M. Bielt, Rayer, Cazemann, and Schedel. They are also preferred in America.

Many of the diseases of the skin were described by some of the Greek, Arabian, and Latin physicians, but no attempt was made to classify them, so far as I can find, until the first quarter of the seventeenth century, and this was first done by Hafenreffer (Tubingen, 1630). His classification was, however, rude and unscientific: he included all diseases connected with the skin, such as wounds, ulcers, fistulæ, &c. About this period Mercurialis published a work exclusively on cutaneous diseases (*De Morbis Cutaneis*, Lugduni. 1630). He divided these diseases into two classes, 1, those that affected the head; 2, those that affected the rest of the body. Though this division is scientifically absurd, it seems to have somewhat influenced that of one of the most celebrated French authors—Baron Alibert, in his magnificent work on the diseases of the skin (*Monographie des Dermatoses, ou Précis Théorique et Pratique des Maladies de la Peau*, par Le Baron Alibert, Paris, 1832—a work the first edition of which was published in 1806). The immediate successor of Mercurialis was Turner (*Treatise on Diseases incident to the Skin*, London, 1736), in which the author adopted the division of his predecessor, and proposed a further ground of distinction, according as the diseases were produced by internal or external causes. This proposal was in turn adopted by Lorry (*Tractat. de Morb. Cutan.* Paris, 1777). Soon after this period, Retz divided cutaneous diseases into acute and chronic (*Des Maladies de la Peau*, &c. Paris, 1790). The next writer was Plenck, who classified cutaneous diseases according to their external characters; and this division was the first step towards the pathological anatomy of these maladies. He divided them into fourteen classes—1, *Maculæ*; 2, *pustulæ*; 3, *vesiculæ*; 4, *bullæ*, 5, *papulæ*; 6, *crustæ*; 7, *squamæ*; 8, *collositates*; 9, *excrecentiæ*; 10, *ulcera*; 11, *vulnera*; 12, *insecta cutanea*; 13, *morbi ungium*; 14, *morbi capillorum* (*Doctrinâ de Morb. Cutan.* Lovani, 1796)*. This was the foundation

* Derien classified them into essential and symptomatic (*Essai d'une Table Synoptique des Maladies de la Peau*, Paris, 1804; a classification republished by Joseph Frank, *Prax. Med. Univer. Præcepta de Morb. Cutis.*, 1821). Mr. Wilson divided cutaneous diseases into—1, febrile cutaneous eruptions; 2, inflammations, simple or constitutional; 3, papulous, vesiculous, and

* See Medical Report of the House of Recovery and Fever Hospital, Cork Street, Dublin, for the year 1832. By John O'Brien, M.D., &c., &c.

of Willan's classification—papulæ, squamæ, exanthemata, bullæ, vesiculæ, pustulæ, tuberculæ, maculæ*.

Bateman subsequently adopted this classification (1819), to which Baron Alibert, M. Biett, M. Rayer, Mr. Plumbe, and Dr. Pagett, have raised many well-founded objections, and to which M. Biett has added many improvements. Mr. Plumbe was the next writer on diseases of the skin (1824), and based his classification on the morbid anatomy of the parts affected. His classification is as follows:—

1. Diseases which obtain their distinguishing characters from local peculiarities of the skin—as acne, lupus, noli me tangere, herpes exedens, syccosis, porrigo.

2. Diseases marked by chronic inflammatory action of the vessels, producing the cuticle, &c. &c.—as lepra, psoriasis, pityriasis.

3. Diseases exerting probably salutary influence on the system, originally produced by, and usually symptomatic of, deranged digestive organs, and characterized by active inflammation—as porrigo favosa, strophulus lichen, prurigo, urticaria, herpes, furunculus.

4. Diseases of a mixed character, &c.—as impetigo, scabies, eczema.

5. Diseases dependent on debilitated and deranged states of the system, and consequent diminished tone of the vessels of the cutis—as purpura, aphthæ, pemphigus, pompholyx, ecthyma, rupia, erythema nodosum.

6. Fungoid diseases of the cutis and cuticle—as ichthyosis, warts, erythema, roseola, venereal eruptions, psoriasis, psoriasis decalvans.—(Treatise on Diseases of the Skin,

squamous eruptions; 4, eruptions proper to infants (Treatise, &c., 1814).

* Willan based his classification on the various primitive forms of the different cutaneous eruptions, which enabled him to make definitions with the greatest facility; but it has been objected to this arrangement, that the eruption may change its nature in the course of its development. Thus we find the same disease placed in different classes by different dermatologists. Ample illustrations of this will appear hereafter; and many may be seen in M. Rayer's work hereafter noticed, in Mr. Plumbe's excellent treatise, in Cazenave and Schedel's work, and in Dr. Pagett's Essay on the Classification of the Diseases of the Skin, to which Baron Alibert awarded his prize in 1832. This essay was fortunate enough to succeed against several competitors, French, German, and Italian. (Edinb. Med. and Surg. Journ., April, 1833). I cannot help observing that the author declared Alibert's classification the best. According to this writer, "the system of Willan must ever remain imperfect, for the character on which it is founded is neither constant nor essential;" but Biett, and his pupils, Cazenave and Schedel, declare it the best.

3rd edit., 1832; first edition appeared in 1824).

Mr. Dendy followed this author in 1827, and his classification is very nearly similar.

1. Diseases symptomatic of disorder in the alimentary viscera—as strophulus, prurigo, crusta lactea, follicular tumours, crinones, follicular wart, acne, syccosis capillitii, phlegmonous tumours, furunculus, phyma, epynictis, terminthus phygethlon, bubo benignus, parotis, urticaria, impetigo, and herpes.

2. Diseases symptomatic chiefly of deranged chylopoietic functions, usually marked by debility—as aphthæ, rupia, ecthyma, pemphigus, purpura, ichthyosis, chloasma, nomé, œdema cellularis.

3. Diseases usually symptomatic, arising also from extraneous excitement, depending probably on peculiar idiosyncrasy—as roseola, erythema, eczema, pityriasis, porrigo, paronychia, onychia maligna, erysipelas, lepra, maliaria, pompholyx.

4. Diseases consequent to specific infection—as rubeola, scarlatina, varicella, vaccinia, variola, pestis, syphilitic eruptions.

5. Local diseases, usually accompanied by little or no constitutional derangement—as scabies, pemio, clavus, verruca, encausis, lentigo, cyanosis, athrica, nævi, condyloma, phagades, intertrigo, morbus pilaris.—(Treatise of the Cutaneous Diseases incidental to Childhood, comprehending their Origin, Nature, Treatment, and Prevention, London, 1827).

The next classification is that of the justly celebrated Baron Alibert, which I copy from the last edition of his splendid work, 1832, the first edition of which was published in 1805 or 1806. He divides cutaneous diseases into twelve groups.

FIRST GROUP.—*Eczematous Dermatoses*.—Genus 1, Erythemata; 2, erysipelas; 3, pemphix; 4, zoster; 5, phlyzacia; 6, cnidos; 7, epinyctide; 8, olophlyctide; 9, ophlyctide; 10, pyrophlyctide; 11, charbon; 12, furuncle.

SECOND GROUP.—*Exanthematous Dermatoses*.—Genus 1, Variola; 2, vaccina; 3, clavelle; 4, varicella; 5, nirlé; 6, roseola; 7, rougeola; 8, scarlatina; 9, maliaria.

THIRD GROUP.—*Teigneous Dermatoses*.—Genus 1, Archores; 2, porriginé; 3, favus; 4, ichthoma.

FOURTH GROUP.—*Dartrous Dermatoses*.—Genus 1, herpes; 2, varus; 3, melitagra; 4, esthomene.

FIFTH GROUP.—*Cancerous Dermatoses*.—Genus 1, Carcine cancer; 2, keloide.

SIXTH GROUP.—*Leprous Dermatoses*.—Genus 1, Leuce; 2, spitoplaxie; 3, elephan-tiasis; 4, radesyge.

SEVENTH GROUP.—*Verolous Dermatoses*.—Genus 1, Syphilis; 2, mycoris fambræsia.

EIGHTH GROUP.—*Strumous Dermatoses*.—Genus 1, Scrofula; 2, farcin.

NINTH GROUP.—*Scabious Dermatoses*.—Genus 1, Gale; 2, Prurigo.

capitis, *P. pubis*; *pulex irritans*, *P. penétans*; *acarus scabiei*: *astrus*; *gordius*.

DISEASES PRIMARILY FOREIGN TO THE SKIN, BUT WHICH SOMETIMES PRODUCE PECULIAR ALTERATIONS IN THIS MEMBRANE.

Elephantiasis of the Arabs.

This author lays all preceding writers under contribution, and has properly excluded all terms which are either unintelligible, or differently employed by the ancients.

Thus the same terms were used for different diseases, and even now, no one can comprehend the meaning of the French terms, *dartres* and *teignes*, employed by some writers of that country, which comprehend every disease, and mean nothing; and are therefore excluded by MM. Cazenave and Schedel.

He candidly and justly admits, that of all the definitions hitherto given, Willan's are most constantly correct. He gives his own definitions of each disease before his description, and an anatomical account of many of the most intractable diseases. He praises the delineations of Willan, Bateman, and Alibert, but adds with reason, "most of the plates, however, exhibit only one of the stages of the inflammation which they are intended to represent.

Thus it happens, that some disease described as *pustulous* has been exhibited in the *squamous* state; that some other also, placed among the *pustulae*, has been represented in the *tuberculous* state; that others, lastly, have been only drawn in the state of *crusts*, a secondary character, and common to several very different forms of *phlegmasiæ*. These faults I have endeavoured to avoid in arranging the plates of this work. The primary forms of the inflammations of the skin, and the alterations which succeed them, have been represented carefully after nature, or the best engravings that have been published.

Mr. Plumbe had coetaneously, if not previously pointed out these defects, and illustrated the different grades of the same disease in his plates. M. Rayer has arranged his delineations in the same manner.

The latest authors are Dr. Green, and MM. Cazenave and Schedel.

Dr. Green's classification is the following:

Forms of inflammation of the Skin, and Diseases which appear under these severally.

Exanthemata: Erythema, erysipelas, roseola, rubeola, scarlatina, urticaria.

Vesiculæ: Miliaria, herpes, scabies, eczema.

Bullæ: Pemphigus, rupia.

Pustulæ: Variola (including varicella, vaccina, ecthyma, impetigo, porrigo, acne), mentagra.

Papulæ: Strophulus, lichen, prurigo.

Squamæ: Pityriasis, psoriasis, lepra.

Tubercula: Lupus, elephantiasis græca, cancer, molluscum, framboesia.

Furunculi: Furunculus, anthrax, pustula maligna.

Diseases which appear with the elementary characters of almost all of the above orders.
Syphilis.

Diseases which are severally types of new and additional orders.

Pellagra, purpura, elephantiasis Arabica, cheloidea, (keloide, Alib).

Original or accidental unusual states of the skin, not referable to Inflammation.

Achroa: Leucopathia, (Albinismus), Vitiligo.

Dischroa (Maculæ, Willan): Lentigo, Ephelis, chloasma, nævus.

Diseases of the appendages of the skin; more properly of the parts which secrete and support these.

Epidermis—ichthyosis, unguis—onychia, pili—plica.—(A Practical Compendium of the Diseases of the Skin, with Cases, &c., 1835).

M. Bielt's Classification is given by two of his former pupils, M. Cazenave and Schedel, in one of the best works on diseases of the skin, entitled "*Abrégé Pratique des Maladies de Peau*, d'après les Auteurs les plus estimés, d'après les Documents Puisés dans les leçons Clinique de M. le Dr. Bielt, 1834.

ORDER I.—*Exanthemata*: Erythema, erysipelas, roseola, rubeola, scarlatina, urticaria.

II.—*Vesiculæ*: Miliaria, varicella, eczema, herpes, psora.

III.—*Bullæ*: Pemphigus, rupia.

IV.—*Pustulæ*: Variola, vaccina, ecthyma, impetigo, acne, sycosis menti (mentagre), porrigo.

V.—*Papulæ*: Lichen, prurigo.

VI.—*Squamæ*: Lepra, psoriasis, ichthyosis, bronze tint, ephelides, nævi, decolorations, albinism, vitiligo.

VII.—*Tubercula*: Elephantiasis, græcorum, molluscum, framboesia.

VIII.—*Maculæ*: Colorations.

Diseases which cannot be referred to any of the preceding classes.

ORDER IX.—Lupus; X.—Pellagre; XI. Syphilides; XII.—Purpura; XIII.—Elephantiasis Arabum; XIV.—Keloides.

Having now enumerated the principal classifications of dermatic or cutaneous diseases hitherto proposed, it remains for me to introduce the Baron Alibert's conclusions on this subject. I shall then offer a few comments on the classifications of Willan, Alibert, Plumbe, Rayer, Green, and Bielt, and attempt to prove that a better system of dermatology than any one hitherto proposed is still a desideratum. But as Baron Alibert has long maintained the first position as an author on cutaneous diseases. I must introduce his views to my readers; I cannot, however, refrain from observing, that in my opinion, his classification is very objectionable, and that he ought to have explained more concisely and clearly the reasons which induced him to propose a natural

classification, which, permit me to observe, though applicable to botany and geology, is not to human diseases.

Baron Alibert, the celebrated author of this natural classification, has long possessed the greatest advantages of any physician of modern times, for investigating the nature and treatment of cutaneous diseases. As first physician to the Hôpital St. Louis, in which are congregated individuals from all parts of the world, he has with great zeal, devoted more than thirty years to the investigation of the science of dermatology; and in imitation of his illustrious countrymen, Jussieu and Cuvier, who so happily classified natural history, he has attempted to arrange diseases of the skin in natural order. He collected together all the genera that bore the closest resemblances, and formed them into the natural groups, which I have already described. In these, he includes all the diseases to which the tegumentary tissues are liable.

He commenced in his first edition (1806) to determine species and form genera, and in some years afterwards improved the nomenclature, and proposed a general methodical arrangement. These he promulgated in his clinical lectures at St. Louis in 1829, which he published in 1832, and from which I quote.

In the inductive lecture to the study of dermatoses or cutaneous diseases, delivered at the commencement of each clinical course, at the Hôpital St. Louis, this session, the Baron Alibert, after an eloquent and classical account of the anatomy, physiology, and pathology of the skin diseases, proceeded as follows:

Necessity of Classification to facilitate the Study of Dermatoses.

Gentlemen, to divide and classify, in my judgment, is to instruct; we trace the first lines of demarcation which exist in the great family, whose history we sketch. We apply the method of naturalists to this study, and abridge our course by the excellence of their arrangements. Twelve groups form the basis of their distribution, which I have established in the hospital, for your instruction.

You will bear in mind all that I have said in the commencement of this lecture, on the peculiar structure of the skin; it appears that this envelope, in modifying itself for new functions, acquires an aptitude for new sufferings. But we ought, at first, to allude to a particular group of diseases, called eczematous, as they are those which manifest themselves by inflammation, and a kind of intense heat in all the external teguments. Erythema is only the result of an irritation more or less vivid in the superficial tegumentary layer, (epidermis or cuticle). Erysipelas is deeper seated, but both succeed in nosological order; indeed, we find that nature unites all diseases by the most manifest relations. What is nearer than the

genera pemphix, zoster, *enidosis*, epinyctis, olophlyctis, ophlyctis, pyrophlyctis, phlyzacia, carbunculus, furunculus, &c., which show their phenomena of irritation even in the cellular prolongation of the derm (skin).

There is no physiologist who does not understand the extreme sensibility of the different tissues (layers) that compose the tegumentary apparatus. There is no person who does not know, that when these tissues are called into action, by a physical or moral cause, the blood flows to them. Is it not this phenomenon which causes the vessels to become the seat of eruptions called exanthemata, which ought to constitute a particular group or class, and to characterise dermatoses purely eczematous? You know that a critical function is ascribed to these efflorescences. In fact, nature has an evident object in view, in these eruptions, which are caused by a morbid taint, to remove an injurious and superfluous matter; but on account of the obstacles that this matter encounters, by the extraordinary irritation it causes, the skin must necessarily change its colour, and often undergo morbid alterations, according as the susceptibility of the layers, and the depth of the affected tissue.

It is unnecessary for me to describe the series of exanthemata, from the head, the seat of the African small-pox, which is as fatal as the plague, and which has carried its destructive influence to all nations; but I wish to allude to this extraordinary contagion, which found a Rhazes for a delineator, a Sydenham for a combatant, and a Jenner for a preventor.

The name of Jenner, gentlemen, cannot be pronounced, without recalling to your memory one of the greatest benefactors that science has ever given to humanity. His discovery of vaccination, by chance, is one of the greatest boons ever conferred on our species.

Gentlemen, we naturally find in this class vaccina, clavelle, (clavus) varicella, nirlle, rubella, roseola, and scarlatina, as well as military eruptions. These exanthemata interest curiosity, on account of the numerous differences in their configurations, colour, development, duration, and termination. The exanthematous dermatoses deserve to be most attentively studied, as they are liable to most fatal recessions, or repercussions. It is a fundamental fact in cutaneous pathology, that the eruptions seated in the cutaneous capillaries are most liable to this termination. We shall give the reason of this phenomenon, in demonstrating the constant sympathies between the external and internal skin. Who does not know, that the mucous derm has not, as some anatomists have pretended, a priority of origin to all the rest, and that it is by a successive progression from the centre to the periphery that it advances and modifies itself, to constitute the envelope of the human body?

We shall describe the various shades of the exanthemata, their period of apparition, increase, circumscription, confluence, the seasons that are favourable or unfavourable to their critical or secretory movements, the symptoms which constitute their malignity, the intercurrent phenomena, &c. The superficial layers of the tegumentary apparatus, being the most vascular, are the especial seat of the multitude of acute eruptions which occur in the early period of life, while the chorion is particularly the seat of chronic dermatoses.

We are next naturally conducted to the examination of the group or class *teigneuses* dermatoses, which comprehend all the depuratory diseases of infancy. By those morbid eliminations, the individual, during the period of youth, appears to purge all the superabundant humours of his economy. Some of these are benign, others obstinate, but civilization seems to require them for the presentation of life.

The *dartrous* dermatoses are clearly allied to the last group, though they occur in all ages, in all ranks and conditions of society. At the head of this class is herpes, whose varieties will demand especial attention.

The genus *various* is generally placed by the side of herpes, because the pustulous affections of it cause the same pruriginous sensation, give rise to the same inconvenience, undergo the same changes, and yield to the same treatment. The species of this class differ, however, from those of the former, as they are the result of idiosyncrasy of the teguments, or of individual temperament.

The more we embrace cutaneous pathology in its vast extent, the better we know the affinities and dissemblances; thus, in my reformed classification, I have separated from the genus herpes the crustaceous darte to constitute a new genus.

There is another which is manifestly connected with the dartrous dermatoses, the esthiomene, which is generally considered a phagedenic inflammation, since it attacks and destroys all the substance of the derms. The term *lupus*, which is employed to express it, is a barbarism, and ought to be excluded. The term esthiomene has long been employed, on account of the correctness of its etymology: the language of the sciences is common property, which everyone may enjoy.

We must not confound esthiomene with the disease called *noli me tangere*, for this takes its source from an isolated, hard, livid black tubercle, the seat of pungent, lancinating pain, which the slightest injury exasperates, enlarges its base, and ranges it with the *cancerous* dermatoses. It is in this group we should place anthracine, &c.

The alterations known by the name of cancers are neurites which implicate the surrounding cellular tissue*. Observe es-

pecially that this neuralgia is constantly the signal, the precursor of the future disease; and remark, when the predisposing cause exists, a fall or contusion is sufficient to develop the malignant disease.

The *leprous* dermatoses contaminate all the humours, affect all the functions, change all the tissues, accumulate and simulate all diseases, and produce the worst effects. We maintain, in their true acception, all the denominations attributed to them by the historians of antiquity. Lepra, though most frequent in warm countries, is not entirely banished from the European territory; it still appears among the great scourges that inflict the human race: *morbus herculeus quoniam eo nullus major, neque valentior*.

Among the important diseases that range in this positive classification are the *verolous* dermatoses: to this group belong the polymorphoses, syphilis, the primary symptoms of which appear on the skin.

By the side of the *verolous* dermatoses are naturally placed the *strumous*. We insist particularly on the genus scrofula, which affects whole generations, and disfigures them by indelible cicatrices.

The genus *farcin* establishes an alliance between veterinary and human medicine. Sauvages and others, ascribe the swelling in the course of the lymphatic vessels in horses, to scrofula. These tumours present the same organization, development, and undergo the same modifications as in man (Dupuy.) Dr. Elliotson has recently described glands in the human subject. The disease is not, however, observed in horses in the wild or savage state. The *scabious* dermatoses affect the papillary body. We hold that each bulb of the hair, each gland, each vessel, has an emissary nerve, if I may use the term, from the great organ which innervates (animates) all the functions, a nervous ramuscle, which vivifies and renders it susceptible of pain. It is to the history of these affections, we must refer that of parasitic animalcules, which lodge themselves in the superficial layers of the teguments, whose mode of propagation is still a problem for naturalists.

There is another group observed in large cities, the *hematous* dermatoses, vulgarly designated *scorbutic*. We place in this class sea scurvy, peliose (ecchymosis), petechiæ, &c. These are caused by a hemorrhage, almost passive, from the cutaneous vessels.

The next group is *dyschromatous* dermatoses. These are caused by alterations of the pigmentum in its reservoirs. Some of this genus are general, some partial, others congenital, and more accidental. Among these are the discolorations, pannus, achromia, albinisme, vitiligo, &c.

means determined as yet, and the conclusions regarding it are very different. Pain is one of the first symptoms, but every one knows that malignant scirrhus may exist for years without it.—Ed.

* The pathology of carcinoma is by no

The last group is termed *heteromorphous* dermatoses, and comprises all the diseases, whose organization and progress are anormal. We class here indurations, hypertrophies, all deviations of the nutritive function, all alterations of structure, &c.

I have adopted for the classification of dermatoses the method of botanists, and I have conformed to the view expressed by Sydenham in the preface of his admirable work. This method consists in acquiring a complete knowledge of the symptoms of the elementary phenomena, and the laws on which the diseases are organized. Nothing, then is more fixed and constant than the morbid productions which are the object of the philosophical classification, which I have proposed. These productions no more change than the fruits of a tree, or the constant and necessary effects of any vegetation. Thus *esthiomene* shews itself in all races of men which are susceptible of this degenerescence, and furnishes us with the results of phagadenic inflammation; thus *melitagre* reproduces itself as a gummy gelatiniform exudation, of the appearance, colour and fluidity of honey. Since the human race is subject to diseases, *lepra*, *herpes*, *favus*, *pemphix*, &c. have always shewn themselves with the same characters; the appearances by which these eruptions differ or resemble each other, are immutable in each group, and in each family. It is, therefore, easier than one would think, for an individual engaged in a methodical distribution of diseases to establish groups, genera, species and varieties. The groups ought to be compared to the tribes of animals: morbid affections cannot be defined but by greater leading traits; but the genera are more circumscribed, are particularly destined for the collecting of species; these are determined in their turn by characters the most constant and marked; in fine, the varieties are commonly arranged according to certain changes of colour and of form, to the temperament, idiosyncrasy, age, climate, predisposition of organs, or other accidental circumstances which almost always have influence in dermatoses.

Such is the arrangement which has always appeared to me the best for a just co-ordination of the facts in this branch of science. A great deal has been said of late years about the elementary physical phenomena, according to the classification of Plenck, reproduced by Willan; but this has a manifest disadvantage of frequently separating that which ought to be united. It is when the cutaneous disease is fully developed, that it is proper to assign it a place in the different nosographical orders; for what would be said of a botanist, who amidst the collections of a long and laborious herborization, would not denominate the plants, but according to their most obscure characters, or the rudiments of their existence? What would be thought, says Sauvages, of a zoologist, who would have the pretention to classify animals

according to the consideration or examination of their eggs? Who does not see, therefore, that this method has the disadvantage of all artificial systems, since it is based on the consideration of a single character only?

After eulogizing the great Linnæus, and Jussieu, Baron Alibert concluded in these words:—"Nurtured by the doctrine of these great masters, I wished in my turn to classify the facts which I observed in the clinic, which I was the first to establish in this hospital (St. Louis). I have delineated a genealogical tree prefixed to my work, which presents, in regular order, the groups, the genera, and the species of the family of dermatoses. It is upon its branches I have placed a nomenclature, which I believe is required by the wants of the epoch in which we live. The terms which I have adopted are not new: the language of Hippocrates, that of Galen, of Celsus, of Rhazes, of Avicenna, &c. generally suffice to express all.

"The sciences could not be perfected by the labours of one individual—our most religious duty is to render justice to our predecessors, our contemporaries, and those who co-operate with us." The Baron then recommended the works of Lorry, who explored the doctrines of the ancients in an elegant style, full of clearness, demonstrated the lacunæ, intimated the points of research, and elucidated the synonymes. He next spoke of Willan's work, as follows:—"A work not less remarkable but more modern is that of Willan. You already know his doctrines, and his faithful translators have endeavoured to enlighten your minds with the precise notions which it contains. This author excels all others in his description of the acute exanthemata. He has particularly explored elementary lesions, and it is impossible not to profit by the light he has thrown on the multitude of facts which he examined with the greatest care. But Willan practised at a dispensary; and it can be readily perceived, that the chronic diseases of the skin passed too quickly before him, and that the phenomena of this order were wanted to him. The reproach which we can, therefore, address to him is, his having altered the acceptations of words, and of having created a nomenclature, which throws a confusion upon the genera and species. There is no doubt, the best language to describe all the elements of this determined branch of art, is that which suddenly recalls to the mind a known character. This language is easily comprehended; it is the rich, abundant, representative language of Linnæus, now classic, which we can understand, and with which we can correspond in all places."

The plan of M. Rayer, and his description and treatment of each disease, are preferable to the last. He first describes the causes, then the symptoms, pathology, diagnosis, and lastly, the treatment of each complaint, according to the best authors, and his own ex-

perience. He also adds the ancient histories and synonymes; and he deduces, from nearly two hundred cases of each disease observed at the hospitals St. Antoine and la Charité, the characters and treatment. He describes their salutary and injurious influence, their relation to former complaints, their progress and connexion with maladies, which are more or less likely to occur. He likewise appreciates the effects of regimen and habit in producing cutaneous complaints, and includes the effects of age and organic changes. He gives a full account of therapeutical agents. He appends an atlas, containing twenty-six folio plates, which illustrate 400 diseases of the skin. This is so well executed, that any one can distinguish the different diseases. An English version of the work has been published, with the atlas, on the same terms as in Paris, and reflects great credit on the translator for his accuracy, and on Mr. Balleire, the publisher, for undertaking it. I have reason to know, that the work has been most favourably received, and cannot fail to be encouraged. It is, however, an expensive one—four pounds eight shillings sterling is a long price, but not too much for such a useful publication.

The work of Cazenave and Schedel has two plates, which illustrate the diseases of the skin, and may be purchased for a few shillings. The Brussels edition is better and cheaper than the French.

It is to be regretted that the celebrated Alibert did not prefix to his classification an account of the relations between natural arrangements and that of diseases of the skin; and I agree with one of his countrymen, that "we have also to regret that instead of imitating the precise language and short terms of naturalists, he has employed an imaginative style, brilliant and metaphoric it is true, but enables us with difficulty to learn the exact meaning of the author, in the midst of the tropes and figures with which it is surcharged."* The writer whom I quote raises numerous feasible objections to the natural arrangement, which I am disposed to think cannot be answered; but which are too long to be inserted in an essay of this description. I am, however, ready to state, that no living author has been more successful in the treatment of the diseases under notice than Baron Alibert; but I must take leave to declare, that his attempt to classify such diseases, according to the method of naturalists, appears to me to be a failure. The diseases of the skin are 120, according to Willan and Bateman, and 141, according to the last edition of Baron Alibert's work (1832). When an attempt is made to classify these according to the natural order, one is disposed to inquire, if the disorganizations of any other tissue can

be so classified? If they can, we ought to have similar classifications of the diseases of every tissue in the human body. We have not, however, such classifications of diseases, and none hitherto proposed, those of the cerebrospinal system perhaps excepted, were ever correct, unless based on pathological alterations, their complications and consequences. This is the plan adopted by Rayer, and in my opinion the least objectionable.

It is also to be recollected that the structure of the tegumentary system, even according to the latest descriptions, is by no means determined. We can however attempt to establish an anatomical and pathological classification of its diseases; the first by observing the lesion of structure and not by functional derangements; the second, by estimating the morbid appearances during life, and the derangements which they produce.

I am perfectly aware of the recent account of the structure of the skin; but years must elapse before it will be generally received. In fine, I have to observe, that I have taken the liberty of commenting on the classifications of the most celebrated modern authors on cutaneous diseases, MM. Alibert, Bielt, Rayer, Cazenave, and Schedel, with a view, on a future occasion, of attempting to offer an anatomico-pathological classification of the disorganizations of tegumentary tissue, and one, which I hope will be more accordant with the real state of science and terminology, than most of the preceding.—R.

(To be continued.)

Reviews.

An Introductory Address, delivered at the commencement of the Tenth Session of the Manchester School of Medicine and Surgery, Pine-street. By James L. Bardsley, M.D. Lecturer on the Principles and Practice of Medicine, &c. 8vo. pp. 47. London: Burgess and Hill. 1835.

An Address, delivered at the First Anniversary Meeting of the Birmingham School of Medicine and Surgery. By James Thomas Law, Chancellor of the Diocese of Litchfield. 8vo. pp. 24. Birmingham: Wrightson and Webb.

THE perusal of these essays has afforded us great pleasure, as they show the vast improvements that have been recently made in diffusion of true medical knowledge *ubique gentium*. There was a time when "sound chirurgical knowledge" could only be obtained in London, according to the then council of our sapient college in Lincoln's Inn Fields; *sed tempora mutantur*. The old gen-

* Philosophie Medicale-Maladies de la Peau. Par M. Martin. Revue Medicale Française et Etrangere, October, 1835.

tlemen of the past century, who lived until the last few years, and stultified the college, could see no talent in the provinces—all sound chirurgical knowledge was confined to themselves; the rest of England, and indeed, of the world, was involved in impenetrable obscurity. According to these sages, his Majesty's lieges were wofully treated in the country, and when a nobleman was ill, he was expected to send express to London, for one of the sound chirurgical oracles. But a free press has put an untimely end to this folly. It also enabled our brethren in the provinces to keep pace with the rapid advances of science; it afforded them every opinion of the metropolitan lions, which was worthy of notice, and led them to the unfortunate conclusion, that they could treat diseases upon the same principles, and with equal success as the primitive sources or sound chirurgical knowledge. Here was a terrific reformation! The press, the most powerful of all human inventions, proceeded, and insisted that medicine could be as well taught in Manchester or in Birmingham, as in London. It contended that the structure, functions, disorders, and diseases, were the same in all parts of this kingdom; that provincial physicians and surgeons could possess the same works, were taught the same principles of physiology, pathology, and therapeutics, as the self-constituted sources of sound chirurgical knowledge, and their formidable opponents, the Rhabarbarians, and, therefore, ought to have the right of teaching. This was at first considered outrageous; but the press, that sways all classes, from the monarch to the peasant, acted on the grounds of reason, justice, and common sense, and was not to be opposed. It acted according to the axiom,

"Fiat justitia, ruat cælum,"

and carried its point. It compelled the College of Surgeons and Apothecaries' Society, or Company of wholesale druggists, to abolish their unjust by-laws, and to recognize lectures delivered in regularly appointed medical schools in the provinces. What has been the result? Simply, that the limpid sources of sound chirurgical knowledge are nearly dried up; empty benches distress them, when compared with the by-gone days of their glory and monopoly. To crown all,

VOL. VIII.

a free and independent medical press brought about a parliamentary committee, to inquire into the present state of medical education and practice in Great Britain and Ireland, which has given the *coup de grace* to medical monopolists. Such has been the influence of the *Lancet*, of this *Journal*, and the *Medico-Chirurgical Review*. We place our contemporaries in the position to which they are entitled, and we exclude the *Lizard*, which always defended every abuse and rascality as long as possible, and now advocates reform at the eleventh hour, when it is inevitable!

Having premised these remarks, we now turn to the essays before us. That of Dr. Bardsley is equal, if not superior, to any published in this metropolis. This address is characterised by elegance of diction, purity of style, real learning, considerable erudition, extensive experience, and genuine philanthropy. It is not one of those hodge-podge introductions, delivered too often in London.

The learned author describes the advantages afforded by the Manchester Medical School, the extent of its museum, library, &c. It appears from his statements, that the means of teaching in that institution are not surpassed. This is also the case at Birmingham School. The Rev. Chancellor Law, in a beautifully written address, gives an account of the numerous improvements made in that institution, and names a long list of its patrons and supporters. It appears that the number of students is now ninety, every one of whom, in the olden days of monopoly should have come to London. It likewise is a fact, that not a single student of the school has been rejected at Lincoln's Inn Fields. How these facts must delight the examiners and council of the London College, especially those of the old school, who would, if possible, suppress every provincial school in the kingdom! —o—

The Cyclopædia of Anatomy and Physiology.

Edited by Robert B. Todd, M.B., Lecturer on Anatomy and Physiology at the Westminster School of Medicine, &c. &c. Part III. October. Illustrated with numerous Engravings. Sherwood, Gilbert, and Piper. This splendid work maintains its excellence. The present part is devoted to the following subjects:—*Arachnida*, by Dr. Audin; *arm*, Dr. Hart; *artery*, normal anatomy of, Dr.

Hart; abnormal, anatomy of, W. H. Porter, Esq.; articulata, R. Owen, Esq.; articulation, Dr. Todd; asphyxia, Dr. Alison; aves, R. Owen, Esq. The names of the writers stand so high, that it is scarcely necessary to state that these authors have treated their respective subjects with their wonted ability, and with great credit to themselves. The illustrations are numerous, and executed with the greatest accuracy. Such a work as this, which contains human, as well as comparative anatomy and physiology, and was long a great desideratum, cannot fail to obtain extensive patronage in this and other countries. It only requires to be known, to be universally encouraged; and we understand it has already a large sale, which it well deserves.

—o—

A Literal Interlineal Translation of the First Ten Chapters of Gregory's Conspectus Medicinæ Theoreticæ, with the Original Text, to which are added, an Ordo Verborum, and rules for Constructing and Arranging the Words of Latin Sentences in legitimate order for Translation; illustrated by Examples from the more difficult passages of Celsus and Gregory. By Robert Venables, A.M., M.B., Oxon., &c. 12mo., pp. 122. London: Sherwood and Co. 1835.

THIS is a useful work to students preparing for examination at Apothecaries' Hall. It is to be regretted that productions of this kind are at all necessary, but they are, and will be so for some years to come. It is easy to account for this state of things. The Apothecaries' Society, which is now in reality the London Faculty of Medicine, so far as education is concerned, does not require an examination in Latin of those apprenticed to its members, and consequently, few of them possess a good knowledge of this language. The Society, however, tests their acquirements in this branch of literature, and those who are ignorant of it, stand in need of the assistance of works such as that under notice. We trust, however, the time is approaching, when no one will be allowed to enter on the study of medicine, unless he has received a good general and classical education. This is the opinion of all universities and colleges, and ever must be: but until such a system of education is required, there will be many who must resort to translations of the medical classics, and even to interlineal ones.

We, therefore, do not agree with some of our contemporaries, in condemning works like that before us, by wholesale; for daily experience in instructing students in some of the elementary branches of medical science, proves to us the necessity and utility of such works. We sincerely hope, however, that in a few years such productions will be unnecessary.

—o—

On Blood-letting.—An Account of the Curative Effects of Abstraction of Blood; with the Rules for applying both Local and General Blood-letting in the treatment of Diseases. By James Wardrop, M.D., Surgeon to the late King, &c. 12mo. pp. 148. London: J. Balliere. 1835.

THIS is a very instructive essay to students and junior practitioners. It contains a great mass of practical information in a small space, and at a very trifling expense. The opinions delivered are generally correct, but there are a few open to some objection. The author too, ought to have alluded to Dr. Marshall Hall's admirable work on the same subject, which contains many important facts, which should have been included. But as the last work is a treatise *ex professo*, and the former an essay, perhaps the author did not feel bound to notice the matter to which we have alluded. Here we differ from him, as we think that this essay ought to be as perfect as possible. There is, however, a vast difference of price between a twelve, and a three shilling volume. We strongly advise students and junior practitioners to add this work to their libraries. It is a cheap, instructive, and valuable manual.

—o—

Foreign Medicine.

Hopital des Enfants Malades.—Angina Tonsillaris.

NICOLAS DUPONT, aged twelve years, of a strong constitution, habitually enjoying a good state of health, and not subject to sore-throat, after having been exposed to rain during a part of the day of September the 9th, was taken in the evening with a violent shivering, followed by heat, attended with pain in the throat and sleeplessness. The next day vomiting was provoked by the smallest quantity of food, the other symptoms continuing. He was taken into the hospital on the 12th, the fourth day of the

disease. The face appeared emaciated, and of a red colour; pain in the forehead; skin hot and moist; pulse 116; the tongue covered with a thick white crust; mouth clammy; breath foul; pain in the throat; difficult deglutition; voice nasal. On examining the fauces, great swelling of the amygdalæ and soft palate was discovered. All these parts were red; and their surface, as well as that of the pharynx, was covered by a mucous exudation, which could be removed with the points of the fingers. Constipation; no pain in the epigastrium, or any other parts of the abdomen. The respiration was free; auscultation and percussion of the chest give only negative signs. The inflammation of the palate, pharynx, and amygdalæ, was intense, but without any complication. The exudation, which covered the inflamed parts, was not a false membrane, as was proved by passing the finger over them; the matter being removed in this way with the greatest facility.

Twenty-four grains of ipecacuanha, in two doses, were immediately prescribed by M. Guersent, together with a gargle composed of half a drachm of sulphate of alumina, two ounces of syrup of mulberries, and ten ounces of barley-water. Lemonade for drink.

Vomiting occurred two or three times after the emetic, with yellowish-coloured stools. Next day the cephalalgia continued; the face was flushed; and the deglutition, according to the patient's report, was more difficult than on the day before. The pain in the throat was also great; the voice much altered; and the thirst urgent. The patient complains of pain in the epigastrium, increased on pressure. Pulse 124; respirations 30, oppressed; skin hot; pain in the course of the larynx and trachea. The treatment was limited to a gargle and refreshing drinks.

On the following day (the sixth of the disease) the pulse had sunk to 96; the epigastric tenderness had disappeared; but the swelling and redness of the throat continued. M. Blache, who had temporarily taken charge of the patient, thought he perceived on the posterior part of the pharynx a yellowish spot, which appeared to him of a fibro-membranous nature. It was removed by the nitrate of silver. The gargle was

continued, increasing the alum to two drachms.

Epistaxis appeared on the ninth day, with herpes labialis. The respiration was more difficult: but the tonsils were reduced nearly to their natural size, and scarcely any trace of exudation remained on their surface. Epigastrium completely free from uneasiness; the tongue has become clean; and the appetite is very good. Solid food was allowed. In two days more the patient was completely cured.—*La Lancette Française*.—*Gazette des Hôpitaux*.

—
Extraordinary Case of Dystocia. By Dr. Thirion.

Madame Lagrange, thirty-two years of age, born at Lamy, and the wife of a merchant in that city, the mother of eight children, of a sanguine and nervous temperament, not tall, but well formed, and who to a fine complexion added the precious qualities of a good spouse, a good mother, and a good housewife*, found herself, on the 5th of August, 1833, at the end of her sixth pregnancy, and at the commencement of labour. She sent to request my assistance.

Examination *per vaginam* placed me in great perplexity; but after a long and attentive examination, I recognized in the pelvic cavity a hard furrowed mass, which I judged to be half the size of an infant's head at the full term. It was placed in the anterior part of the right side. I ascertained distinctly that it was formed in the thickness and at the expense of a full half of the uterine neck; for I could trace, without any interruption of continuity, the rest of the orifice, which dilated itself during the contraction of the womb, and through which I could feel the head of the infant, in the left occipit-anterior position.

After several hours of labour, during which this mass pressed down, I felt myself obliged, on account of the patient's weakness, and my fear of a rupture of the uterus, to call in the assistance of a colleague; when, all at once, while the messenger was gone for him, the tumour was depressed more than ever, in consequence of redoubled

* It is scarcely necessary to remind the reader that this is a French case.

contractions, and of sustained pressure which I exercised; and the infant was expelled dead. A strong dose of the ergot of rye had been given. In taking away a portion of the placenta, in order to arrest a commencing hæmorrhage, I found that this mass was prolonged into the right side of the body of the uterus, where it had a lengthened pyriform termination, while its base was at the neck of the uterus. The accouchment was followed by nothing unusual.

I felt myself obliged to represent to Monsieur Lagrange the danger which might accrue to his lady, in the event of another pregnancy; giving him a black catalogue of the serious, and perhaps fatal accidents to which it might expose her. But this narration, dictated by the philanthropy of our art, produced only a temporary effect. Passion made him disregard the danger of sacrificing his wife, and Madame L. became again *enciente*. This pregnancy offered nothing remarkable in its course; but delivery took place at the end of six months. It was accomplished with ease, from the small size of the fœtus. The tumour, which I have before mentioned, was still in its place; but had increased in size. The fœtus had been some time dead; and the epidermis peeled off. Her convalescence was favourable.

I repeated my observations to the husband on the danger his wife incurred from pregnancy; for the philosophy of our art, like every other kind of philosophy, makes it imperative on us to avoid misfortune and death, whatever may be the means necessary to accomplish this benevolent object. All my admonitions ended in another pregnancy. It was very obscure, until half its term had elapsed. Madame Lagrange repeatedly felt strong pains in the abdomen. Examination, which was repeatedly instituted, always discovered the tumour in the pelvis. The uterus was bi-lobed; but the pregnancy went on to its full term; and on the 22nd of July, 1835, at two o'clock in the morning, her husband summoned me, announcing that his wife was in labour, and that the water had just escaped. Examination quickly informed me that the tumour, hard, furrowed, and as large as the head of a full-grown fœtus, was in the cavity of the pelvis; and that it was

impossible to get by it in order to tell what was beyond. The uterine contractions were strong; and every time they recurred, the tumour was violently forced downwards. Blood was poured out rather copiously; for before the patient lay down, about ten ounces escaped. The horizontal position was rigidly prescribed; and I allowed the labour to go on for an hour; when, convinced of the impossibility of delivery by the natural passages, I called in Dr. Evrard, who coincided with my views on all points. We likewise sought the assistance of Dr. Mercier, whose opinion agreed with ours; but at this period of the labour we perceived between the pubis and the tumour a part of the fœtus, which by its density appeared to be the head. We then thought of having recourse to one of the most serious operations of surgery, the Cæsarian section; but previously to this, I went to request Dr. Darigarde, whose experience is always resorted to on these occasions, to favour us with his advice. His decision was the same as ours. The Cæsarian operation then was determined on, without hesitation, by the four physicians present; and Madame Lagrange performed her religious duties. While we were commenting on the peculiarities of this rare, and perhaps unique case, I felt desirous of attempting to push back the tumour. The project seemed chimerical; and I confess I hardly thought it could succeed. Nevertheless, my attempt was crowned with success. The enormous mass was pushed back, during an interval of the pains, into the posterior part of the right iliac fossa; the uterine neck was thus placed in the centre of the superior outlet, and a violent contraction made the head of the fœtus descend into the cavity of the pelvis, where the tumour had previously been; and another pain caused the expulsion of a full-grown living infant. The placenta quickly followed, and the patient found herself in the usual situation of lying-in women.

We could each of us then, through the walls of the abdomen, recognize a great part of the tumour occupying the right side. A few days afterwards I made an internal examination, and found the inferior part of the tumour in the cavity of the pelvis. I remarked at the same time that the neck of the uterus had been torn to a considerable ex-

tent. Except these peculiarities, every thing was as I had found it after the sixth accouchement. Madame Lagrange quickly regained her usual state of health. All the functions went on naturally; but the secretion of milk did not take place. The tumour gave her no inconvenience.*—*La Lancette Francaise.*

Internal Exhibition of Cobweb.

Dr. Bertrand, of the School of Medicine at Montpellier, has addressed to us the following observations on the good effects of this substance. Its external use is well known; and it has also been recommended internally; but its employment had been abandoned. The singularity of the medicine ought not to prevent us from making ourselves acquainted with the experience of a distinguished young physician on the subject of its efficacy.

I have employed with success, says M. Bertrand, this remedy in palpitations of the heart. Two Sicilian physicians (the brothers Candiloro) had told me that it was a powerful sedative to the movements of that organ; and that they administered in doses of twelve or fifteen grains. I have had occasion to state, several times, the good effects of this remedy, even in cases of palpitation depending on hypertrophy of the heart; but I have been obliged to increase the dose to fifty grains three times a day. The patients have never been fatigued by the action of the medicine, which has none of the disadvantages attached to the employment of digitalis. Several of my colleagues to whom I communicated the results I had obtained, have had occasion to congratulate themselves on the employment of this new means.

I give the cobweb in powder, beginning with ten grains three times a day, in three or four ounces of water, sweetened with sugar or syrup. Every three or four days I add five grains to each dose. The powder may also be incorporated with honey or sugar, and made into pills; of which the size may be varied according to the facility with which the patient can swallow them.—*La Lancette Francaise.*

* No mention is made in this case of any attempt to induce premature labour, or to extirpate the tumour.

Cyanuret of Gold as an Emmenagogue.

Dr. Carron has made with this medicine the experiments which we are going to relate. The idea of employing it was suggested to him by Dr. Furnari, who, in endeavouring to resolve glandular affections by this new metallic combination, perceived that in addition to the marked influence it had over them, it had also another more evident still—that of producing a flow of the menses, even in the case of women who had long passed the critical period of life. The following are the experiments which he made in concert with Dr. Furnari.

1. Madame P., about 42 years of age, had been the subject of amenorrhœa for about twelve months, at which time I had extirpated a breast affected with very decided cancerous disease, and from which operation she recovered very well. We gave her the emmenagogue mixture of Dr. Furnari, to take by tea-spoonfuls morning and evening, a fortnight before the ordinary period, and we were not a little surprised at finding the catamenia appear in great abundance. For two months they returned regularly and copiously: the third month there was a diminution. We recommenced the medicine, and the discharge in consequence flowed anew at the proper period, and in sufficient quantity.

2. A young woman was sent to me by my friend, Dr. Lacorbiere, and was received into the dispensary. She was the subject of very considerable scrofulous swellings, for which various modes of treatment had been tried. Her age was seventeen, and the catamenia had never but very imperfectly appeared. All the common emmenagogues had been employed without avail. After preliminary evacuations of blood, to subdue an inflammation which was present, I gave her the mixture of Dr. Furnari, with the double object of reducing the glandular affection and restoring the uterine evacuation. The latter effect was produced in a fortnight. It returned in abundance for three months, with complete suppression at the fourth. The mixture was given again, and the menses returned.

3 and 4. Two women presented themselves at the dispensary. The youngest, affected with almost complete amaurosis, went out of the hospital, where she had re-

mained four months, and from that time the catamenia were suppressed. The other, affected with marked sanguineous congestion of the eye, had not menstruated for three months. Both were put the same day on the use of the emmenagogue mixture, and both menstruated anew eight days after commencing the use of the medicine.

5. Mademoiselle P., of Bourdeaux, nineteen years of age, of a scrofulous constitution, with very irregular and scanty menstruation, was submitted to the action of the emmenagogue mixture, and after a fortnight's trial the uterine flux appeared copiously. For four months afterwards their course was only once interrupted, and that slightly, and the medicine very quickly restored its regularity.

6. In this case only the medicine failed. It was that of a young lady, at Lyons, affected with chronic iritis, and effusion into the chambers.

In a consultation, at which several physicians were present, I was obliged to mention this medicine and its efficacy, and this has forced me to give this account of the trials instituted by Dr. Furnari and myself before our investigations are finished. The cyanuret of gold ought to be given in solution, in the proportion of three grains to an eighth-ounce mixture. It can only be held in suspension by a spirituous menstruum of eighteen or nineteen degrees. The preparation requires the greatest care: we generally confide it to M. Deschamps.

After what we have just said, it will be readily understood that this medicine is not applicable in cases where the stomach is weakened or irritated.—*La Lancette Française.*

—o—

The London Medical

AND

Surgical Journal.

Saturday, November 21st, 1835.

THE SYSTEM OF MEDICAL CHARITY.

As we have some reason to believe that the state of the Royal Hospitals throughout the Kingdom may ere long become the subject of Parliamentary inquiry, we will call the present attention of

our readers to the defects in these and other medical charities—to the insufficiency of the whole system now in operation for the medical relief of the poor.

We have repeatedly made separate allusion to the existing economy of hospitals, of dispensaries, and of parishes; we shall now endeavour to show that the two former are not only individually open to much censure, but stand altogether in a wrong relation to each other; and that the last is essentially bad—that no parochial system ever will or can afford effectual relief to the sick poor—that all such systems of medical charity ought to be entirely done away with, to make room for one more humane in its aspect, and more extensive in its provisions.

1. The magnitude or number of hospitals in the metropolis is altogether incommensurate with its population; so that supposing the conduct of these institutions to be altogether faultless, a large proportion of the poor labouring under acute diseases must go unrelieved, or seek for relief elsewhere; if to this we add the difficulties opposed to the admission of patients, even when there is room for them, by the clumsy and barbarous regulations about letters, proper days, and proper hours, the amount of actual relief extended to those who want it is—better than nothing, and that is all that can be said for it. Again, the out-patients of hospitals are miserably neglected, for the obvious reason that the medical officers have quite enough to do and to think about within doors. Lastly, the system of medical instruction is meagre and inefficient, because the physicians and surgeons have no salary, nor any inducement to the assiduous discharge of their functions! for the same cause the pupils are ruthlessly pillaged by their instructors, who prefer rifling the pockets of poor lads, who are many of them badly enough off already, to making a straightforward manly declaration that they do not mean to work

for nothing, and that if the hospitals want their services they must pay for them.

2. Dispensaries cannot give effectual aid to acute cases which require to be visited at home, because it is not to be expected that the medical attendants will undergo a tremendous degree of labour and annoyance, merely as a pastime—it is not to be expected that men possessed of their senses will trudge night and day through every street and alley of an extensive district, exposing themselves to fatigue, bad weather, contagion, filth, brutality, and every thing else that can injure the body and disgust the mind, all without any kind of remuneration or benefit, except that of being thought very charitable by some, and very foolish by others.

The truths above-mentioned are exceedingly obvious; they can be denied only by those interested in the perpetuation of evil. And what are the inferences from these truths? That *hospitals* should be enlarged, or multiplied, to meet the exigencies of society; that they should confine their ministration to in-door patients, to whom poverty and disease should be a sufficient recommendation at any hour of the night; that they should give ample salaries to able and experienced medical officers, who should be obliged to fulfil their duty effectually and punctually, both to patients and to pupils: that *dispensaries* should take cognizance only of those cases that can attend at the institution; that a sufficient number of well qualified medical men should be engaged to give every case that presents itself a full and deliberate consideration, instead of driving helter-skelter through a hundred cases in an hour—that a just compensation should be offered and an honest discharge of duties required. And how are these desirable ends to be attained? We answer, they will not be attained till the whole system of medical charity is placed on a broad, a solid, and a *national* foundation. They will

never be attained as long as the poor remain dependent for relief on the disinterested, but ill-directed charity of a few benevolent individuals, and the interested pretence at charity of a set of knavish treasurers and secretaries, with the addition of doctors, who are admitted into the number either of the *cheats*, as at hospitals, or of the *cheated*, as at dispensaries.

3. The parochial arrangements for the relief of the poor are at present so execrable, that exculpation from malignant intentions are at present all that can reasonably be expected by those with whom they originated; but supposing such arrangements to be much better than they ever have been, or are ever likely to be, it is evident that they must still be utterly inadequate to their end. A country parish, for instance, where, as often happens, there are many more paupers than rate payers, could never bear the expense of a proper medical establishment for the poor. Many of the peasantry, also, who are able to live comfortably enough when they are in a condition to work for their livelihood, are reduced to the greatest distress when overtaken by illness; they have no claim on the parish, they have not the means of paying for medical advice, and country practitioners are, for the most part, far too poor themselves to give their time and labour for nothing: there ought, therefore, to be some effectual provision made for persons so circumstanced—for those who, as they mainly contribute by their toil to the prosperity of the state, have a right to expect some support from it when they are disabled. An infirmary and dispensary should be instituted in every town, proportioned to its population, and that of the surrounding country; and these, like the metropolitan foundations of the same kind, should be under the auspices of government; the parishes should have nothing to do with them, but they should be open to all poor

persons who are ill, whether they have or have not a claim on the parish. There is need of a new department of legislation to preside over all matters relating to the public health, and particularly the medical relief of the poor. We have little doubt that this, like other wants of society, will one day or other supply itself; we have as little doubt that the one medical faculty which we have always advocated, will be established before the world is many years older: this faculty ought to be much consulted by government on all matters relating to the public health, but ought not to be invested with the entire management of them, because medical men, like all other *classes* of men, have some interest apart from the rest of society which, even unconsciously to themselves, have a tendency to warp their views of public affairs. For what we have just now said we shall doubtless be denounced by many as insane. How can this taxed and burdened nation bear the expense of so vast an establishment as that proposed? Answer, the nation bears the expense already, without deriving the advantage; there is more than money enough *now* spent on medical charity to do all that is needful, but it is squandered away by a system of humbug and delusion, which robs the rich without materially benefiting the poor.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Lepra Syphilitica.—Use of the Hydriodate of Potash. From a Clinical Lecture by Dr. Elliotson.

THIS case, gentlemen, is one of lepra syphilitica, occurring in a female patient, aged 49, who was admitted on the 15th of August. She stated on her admission, that she had been a widow for eleven years, but married for the second time about six weeks ago. About three weeks since, after having drank freely of cold water whilst very warm, an eruption appeared over the face and chest, extending shortly afterwards over the whole body. Now, you will notice, how cautious it is necessary for you to be in receiving the statements of patients; you observe she attributes her disease to the cold water; but

I have no question she had had primary venereal sores, though she denies it, and we have no evidence of it. The eruption, says the report, on her admission, appears in the form of tubercles, hard and dark-coloured, and in some places covered with scales. Now, the common form of lepra is detected by solid elevations, around which, small patches are observed, about a line in diameter, reddish, shining, and circular, and which are prominent; but you will observe that in this case, which was a well marked one of the syphilitic species of this disease, that the red spots were of a dingy colour, and very hard, almost worthy, indeed, of the name of tubercles.

The soreness of the throat still continues, and the right tonsil is ulcerated. Though there is no sign of venereal sores or gonorrhœa, as I before stated; she complains of pains which have affected her legs for some time, and which are worse at night. She had been taking mercury before her admission, for the eruption, and her mouth was tender, and she had a copious flow of saliva. Her bowels were open: appetite good. I ordered her two scruples of our solution of the hydriodate of potash (five grains hydr. potash) three times a day. After taking this medicine for a few days, the eruption was decidedly better, but I did not attribute this to the effects of the hydriodate, but rather to that of the mercury. Anxious to try the effects of the hydriodate, given alone, I omitted its further use till the effects of the mercury were entirely gone. The eruption did not seem quite so well three or four days after this omission, but on the 5th of September, about a fortnight afterwards, the eruption was decidedly improved, and an ulcer which she had on the inner side of the lower hip had healed.

On the 8th I resumed the use of the hydriodate of potash, by giving her half a drachm of the solution three times a day. On the 12th, the report says that the pimples are rather sore, several new ones having appeared, whilst others have disappeared: one of her eyes which had been red and painful, was better. You will frequently find the mucous membrane of the eyes and nose become inflamed and painful when this medicine is given; it also sometimes produces pain in the frontal sinuses. The dose of her medicine was increased to day to two scruples and a half.

On the 17th, her urine was more abundant, and there appeared a number of large vesicles on her legs and thighs, of a dirty hue, interspersed with tubercles; there was no pain in them, except when they were broken by chance, when a watery fluid was discharged, and dark scabs remained; the eruption is disappearing from the face, leaving only red spots: you often find in cutaneous diseases, that the marks of red spots will remain.

On the 13th of October she was still improving. She now takes two drachms of

the solution, having gradually increased it. She was discharged on the 27th, cured.

This case is a very satisfactory one in regard to the use of the medicine employed. I have lately relieved with the hydriodate, a case of nodes of a syphilitic character, which had resisted every species of medicine for fifteen years. The present case no doubt could have been cured by mercury, but I consider the hydriodate of potash preferable to that medicine.

Cases of Erysipelas.

Mary Perks, aged 30, was admitted October the 22nd, under the care of Mr. Liston. She is a servant, and had attended her mistress with great assiduity both day and night, with puerperal fever and erysipelas, of which she died. On the day of her mistress' death she was attacked with idiopathic erysipelas, which appeared on her head, scalp, and face, and extended some distance down the neck. She was admitted in this state, and the eyelids were so distended that vision was impeded. She was violently delirious. The strait waistcoat was obliged to be employed.

23rd. Pulse 120; delirium violent; vesicles formed on each eye, filled with a purulent kind of fluid. The face was freely scarified, and afterwards fomented. There was great tenderness on pressure over the stomach.

Rx. Vin. antim. tart. ʒ iii;

Sol. muriat. morphiae, ʒ ss.

Aq. destillat. ʒ vss. M. coch. mag. ij, 3tis horis. A line was drawn with the nitrate of silver about an inch below the inflammation in the neck.

24th. Less delirium; pulse 110; erysipelas not extended beyond caustic; the tenderness on pressure over the stomach remains; twelve leeches to be applied; the scarifications were repeated, as were also the medicine and fomentations. Bowels open.

25th. Delirium less; pulse 100; face again scarified; collections of pus forming round the eyes.

Rx. Vin antim.,

Sol. muriat. morphia, ā ā gutt. xx.

2nd, q. hora.

26th. Delirium entirely gone; pulse 98, weak; collections of matter forming in various parts of the scalp, and particularly round the eyes. Beef tea; no sleep in the night. Bowels open.

28th. Pulse 90; very weak; several incisions were made in various parts of the scalp, and a quantity of unhealthy pus evacuated. Three ounces of port wine daily, with beef tea.

Nov. 9th. Has been gradually improving since last report; there have been several more incisions made in the scalp, and a quantity of matter evacuated. She is now in a convalescent state.

Georgina Wallis, aged 25, admitted Oct. 28th, under Mr. Liston, who on Friday last removed a small warty tumour from her forehead, just above the nasal bones; the operation was very speedily performed by an elliptical incision; the edges of the wound were brought together by three small needles and the twisted suture. She did not choose to stay in the hospital, but went home, and it appears from the statement of some of her fellow servants, indulged in drinking spirits to some extent. On the Wednesday afternoon her face and head were entirely enveloped in erysepatous inflammation; pulse 105, full.

Rx. Vin. ant. tart. ʒ ss;

Solution muriat. morphia, ʒ i;

Aq. destill. ʒ vss. Coch. mag. ij, 3tis horis. A dose of house medicine.

29th. Erysipelas extending down the neck; pulse 110; bowels confined. Pil. colocynth, c.; Hyd. gr. x. Head and face much distended; extremities cold; slight picking of bed clothes. Port wine to be given; bowels open.

Nov. 2nd. Pulse 130, "small, weak; delirium rather less; subsultus tendinum; picking of bed clothes much increased; extremely cold. Typhoid symptoms supervened; and though every means were resorted to, the patient sunk and died on the 7th.

Mr. Liston remarked that these cases were as severe as any he had seen; and he had had opportunities of seeing a vast number of cases of this disease. This complaint is apt to mar the best effort of surgeons to relieve disease by the knife, as it might come on after trifling operations and destroy the patient. The causes of erysipelas were various; it might be the result of injuries, or it might be idiopathic; it is met with in different degrees of severity; sometimes attacking only the surface of the body, like that inflammation seen after the application of a blister, sometimes the whole substance of the skin becomes affected; sometimes the subcutaneous cellular tissue is implicated; the muscles and even the bones had been known to suffer from this disease. After giving some very excellent remarks on the causes and symptoms of this complaint, which we are sorry we have not space for, Mr. L. proceeded to the treatment. Local blood-letting, in some cases, was of the greatest advantage; but the abstraction of blood was always cautiously to be resorted to: for though the inflammation appears very great, there is not much resistance to debilitating causes in the system; and it is apt to run into typhus: puncturing the affected parts was also good, as it prevented the formation of matter and sloughing of the cellular tissue; in cases where the scalp is affected, incisions may be made in it with great advantage; indeed, if the matter be allowed to remain beneath it, the scalp may be lost, the bone be exposed, and the patient

generally sinks ; immediately matter is detected in any part, it is well to open it, not to wait till it points. If the disease happen in the extremities, incision may be made, but not a foot and a half long, as recommended by some surgeons. One or two moderate-sized incisions, well placed, are as beneficial as a dozen. Fomentations are the best local application, applied after the punctures, as in the above cases. The digestive organs are to be attended to, as there is generally some disorder of them in this disease. The nitrate of silver, as applied in the above cases, Mr. L. considered a good application ; but he considered that washing the affected parts over with caustic solution was injudicious, as the disease was likely to attack the internal parts, and it was more easy to drive the disease outwardly than to get it back again to the surface.

—o—

Some Practical and Medical Contributions to the Science of Mineral Magnetism. By Dr. Charles Schmidt. Read before the Westminster Medical Society, November 14th, 1835.

In treating of mineral magnetism, in reference to its curative powers on the diseased human frame, it seems necessary to premise that it is totally separate from animal magnetism, and that the magnetic influence operates through, and consists wholly of, the physical properties of the magnet exercising an agency on the nervous system.

Mineral magnetism, like many other excellent remedies, has not escaped the injury resulting from falling into the hands of charlatans : thus it lost its value in the opinion both of the medical profession and of the public, and fell into disuse.

Many have, since its first adoption, essayed at different times to revive its application. In regard to myself, I may remark, that the natural bent of my mind was to natural philosophy, and to the rapid progress with which the different kinds of electricity were developed. About six years since, my attention was particularly directed to the magnet by some cures in headach and toothach effected by its means. The person who performed these cures was an illiterate man, who travelled through Germany vending magnets, with which he pretended to perform the most wonderful cures.

Some of the effects I found could not be denied ; I procured, therefore, some of the magnets, in order to try experiments, and soon found that, though capable of producing an effect in some minor evils, I was not able to act on others more serious, though in nature the same. I concluded thence, that if I could produce more powerful magnets more striking effects would result. To gain this power I studied all that had been written regarding the magnet ; collected many va-

luable facts, and, at the same time, met with contradictory, absurd, and unsatisfactory statements ; finding also, that on the point most important in my estimation, *that of constructing powerful magnets*, no information could be gained ; the rules laid down for this purpose by writers proved imperfect. Disappointed, I inquired, and soon found that some of the fundamental laws for regulating the construction and the application of the magnet were utterly erroneous. Not wishing to enter into a philosophical discussion regarding the nature of magnetism, or of the sources of these errors, I may remark, that in the construction of magnets under the regulations referred to, I could not get beyond a certain point. Convinced thus that the principles upon which magnets were constructed must be wrong, I was led to examine the manner in which the communication of the magnetic fluid is effected, and was astonished to find, that *the magnetic poles, instead of producing*, as was hitherto supposed, *the opposite*, produce *similar* poles ; that is, a north pole is produced by a north pole, and a south pole by a south. This led to other experiments. A new truth was established, and, at length, I gained the reward of my labours, in getting possession of a method of *constructing magnets of any power*. Gaining the power thence derived, I was enabled to experiment to any extent ; and from these experiments the hope has arisen that my labours may be, in some degree, instrumental towards the re-establishment of a very efficacious, forgotten, and by too many, I am sorry to add, a despised remedy.

The history of Mineral Magnetism may be traced to remote ages. The power possessed by the magnet would necessarily strike the observer. Egyptians, Chaldeans, Hebrews, Greeks, Romans, Arabs, and Chinese, held it in high estimation, both as a valuable and magical remedy. Some, however, considered it as not only dangerous, but even venomous. Others, who thought it salutary, combined it with many remedies, external and internal. Thus, the most ancient nations wore loadstones in the forms of amulets, inscribed with magic characters. In Paracelsus' writings, are the first rules for the application of magnets, unfortunately associated with such immoderate praise, as to have raised the monkish superstition of his time, to proscribe magnetism, as an invention of hell. It is curious to observe, that, in the writings of Paracelsus and of his followers, Helmont, Reuchlin, Thremitius, Turneysen, Cornelius Agrippa, Fludd, Maxwell, and others, when treating of the loadstone, the first principles of animal magnetism, concealed by magic formulæ, are to be met with ; and, in connexion with this, it is worthy of remark, that animal magnetism, as it now exists, was discovered by Messmer, in consequence

of applying metallic magnets. Magnetic and electric phenomena being at this time little understood, Messmer thought the effects produced could not proceed from the magnet, and ascribed them to the manifestations in the application. Acting upon this idea, he published his famous system, the futility of which was first proved by the Academy of Medicine at Paris.

Messmer called his new practice magnetism, because an imponderable power, or fluid, as in *mineral* magnetism, is supposed to be the chief agent. Nothing could have been more injurious to the cause of mineral magnetism, this being continually confounded with animal magnetism. And, in regard to animal magnetism, it may be observed, that though we cannot deny all its phenomena, we may safely assert, that no cure has been effected by its means; and that the whole subject belongs rather to physiology and psychology, than to the therapeutic art.

To continue the history of magnetism, however, it may be recorded, that before the invention of artificial magnets, Talban, Wecker, and Burelli treated headach and toothach successfully with the magnet.

About the middle of the last century, artificial magnets were invented. Many experiments were made by the physicians; they re-adopted the practice which the common people, as may be seen from many of the herbals and old traditions, had never wholly given up.

The appearance of the report of Clarich, on toothach, at the Society of Sciences, in Gottingen, in 1765, excited some sensation, which was mightily increased by the magnetic cures in Vienna, by Maximilian, Kell, and Messmer, in 1774. The conflicting opinions of the learned, on the subject, induced the Royal Academy of Medicine, at Paris, to appoint a committee of their own body to investigate the cures by *mineral* magnetism. This committee consisted at first of Manduyt and Andry, afterwards of Thoniet and Andry, aided by Le Noble, who constructed the magnets, and gave in their Report in 1782, which appeared in the *Memoires de Medecine et de Physique Medicale*. This was translated into German in 1785; but was not, as far as I know, ever translated into English.

This report, encouraging to magnetic practice, contains the history of magnetism up to that date, including every thing of importance; correct reports of cases; accurate and well founded deductions, and all matters of interest to the therapist. The chemical relations only are imperfectly noticed.

After this, in 1829, the work of Dr. Becker appeared: the most ingenious and complete in regard to the chemical relations of this valuable agent, the magnet. So high was the opinion of Vilesins, of this remedy, that he recommended it in Asiatic cholera; and I myself, applied it with success, in relieving the spasms of patients in the chief

hospital of Vienna, to about two hundred cases of this tremendous disease.

And here, before leaving these historical notices, it is my duty to remark, that, from the works referred to, a basis of facts may be drawn, in which successful experiments, and these most extensive, may be founded.

To produce the grand effects from the use of the magnet, powerful instruments are required, and many of the failures are to be ascribed entirely to the imperfection of the instruments. Fully, aware as I am, of the difficulties in the way of discovering the laws upon which magnetic phenomena are founded, still, I am convinced that these difficulties may be surmounted; at the same time, here acknowledging that the circumstance of the use of the magnet having fallen into the hands of the charlatan, has rendered it a difficult task to any one who undertakes to urge its adoption.

The physician who employs the magnet cannot, however, be accused of empiricism, inasmuch as this certainly deserves a distinguished place among those remedies which most beneficially operate on the diseased nervous system; and physiology will, it is likely, enable us to assign to mineral magnetism its therapeutic place, when the relationship of *telluric* magnetism to life, shall be ascertained. Its analogy, perhaps identity, with electricity and galvanism, affords less light than might be supposed, because the relations of these to organic life, have not as yet been discovered, though it cannot be doubted that their influence is considerable.

The influence, chemically, of metallic magnets, has been established by experiments in reference to *crystallisation*. Of *cosmic* magnetism, though every where influencing life, our slight physical and chemical knowledge of it obliges us to seek from *metallic* magnetism the knowledge of its grand fundamental principle, and the therapeutic art affords the field in which successful experiments must be first made. Till isolation be effected, it seems impossible to make the effects of telluric magnetism visible; and thus adds still further to the necessity of having recourse to metallic magnets; recourse to which we can now the more easily have, because able to construct magnets of any power.

Still, we can hardly expect that the etiology of magnetism will make rapid progress, because the experiments are very expensive, require much time, and great accuracy.

It seems necessary to remark, that, in the application of the different kinds of electricity, comprising magnetism, electricity by friction and galvanism, we are not to imagine that they can be indifferently applied. I warn, and I believe with good reason, against the application of electricity or galvanism during menstruation and pregnancy, and in cases of fever, inflammation, plethora, and great irritation; while, in all these cases,

magnetism may be applied without danger and frequently with success, the violent inflammations, those attended with swelling, being excepted. Yet, even in these latter, the state of general irritation *preceding inflammation*, and, during which, the vascular system is still under the influence of the nervous, may often be removed by magnetism, and the inflammation itself will subside.

The effects of magnetism on the diseased nervous system is either calming or strengthening, according to its quality or quantity.

All effects produced by magnetism on any diseased part must be considered as subject to, and entirely dependent upon the action of the magnetic influence on the nervous system; a circumstance explanatory of the effect produced by magnetism on so many different diseases.

As facts are established that many nervous disorders, cramp, colic, &c., disappear almost instantly on the application of even a small magnet, it seems incomprehensible that medical men do not use it before resorting to other remedies. Richter, in his therapeutic work, expresses his astonishment that a remedy so efficacious, and of such calming influence, was not used more frequently. "Most physicians," he observes, "it would seem are of Van Vysten's opinion, who will have it used only when all other antispasmodics are of no avail. How often does toothach, tormenting the poor patient to distraction, embarrass the practitioner by resisting all remedies? Most toothaches are either of a rheumatic or nervous kind; and, those accompanied by inflammation are mostly secondary, and, generally speaking, created by the common treatment of the teeth. How very few know or use the magnet! Narcotics, preparations of ammonia, severe caustic remedies, burning of the nerve, are nothing in comparison with the magnet, putting aside the destruction of the teeth occasioned by the other means.

In deafness and weakness of the eyes, the sanitary influence of magnetism is established, though not much employed, notwithstanding the practitioner is, in these diseases, often at a loss to proceed.

In recent nervous affections, the magnet has not been much employed. The cases treated with such brilliant results by Andry and Thanet, were severe and obstinate. The magnets used, were after the method of Le Noble, which are very imperfect.

Notwithstanding these results, notwithstanding the condition displayed in the Report by Andry and Thanet, little attention seems to have been paid to the curative power of the magnet: a circumstance which I am inclined to ascribe to the difficulty of constructing magnets of sufficient power, and of keeping them continually of the same force. These advantages, as I have stated before, I have been enabled to realize.

Another great obstacle to the extension of the practice of magnetism originated in the opinion that *the cures effected by the magnet are not lasting*; an opinion partly justified, because the magnet was never applied systematically, and never combined, as it ought to have been, with other means of cure.

Magnetism is not one of these visionary remedies so often cried up as omnipotent. Its effects are on the nervous system, and these effects are to be seen. To cure is what is wanted, not merely to try experiments; cure being the prime object of medical science.

One great benefit connected with the application of the magnet is, that no injury can possibly result from it, as any unpleasant effect can be immediately destroyed by the removal of the instrument, or by some touches applied in a contrary direction. Neither the quickness with which it operates, nor its unalterable power, (not affected by temperature), nor any other circumstance, occasion any degree of periculum in moræ. The apparatus for treatment can be always ready; the application itself requires but little time, and but little practical dexterity. How very different is it with electricity and galvanism!

Even if viewing the effects of the magnet as merely palliative, it still must be acceptable in the symptoms of many diseases; for symptoms are very troublesome; indeed, many have died of "symptoms."

To effect cures three different kinds of magnets are made use of, namely:

1. Horse-shoe magnets.
2. Magnetic staffs.
3. Magnetic plates.

1. *The Horse-shoe Magnets.*—The curative powers of the instruments, being in direct proportions to their power of attraction, it necessarily follows that the horse-shoe magnet is the chief instrument in performing magnetic cures. How far art had succeeded in their construction, so far back as the year 1754, we see by the magnets which Le Noble laid before the Royal Society at Paris. One of them weighing 9lb. lifted 103lb.; the other of 15lb. weight, raised 205lb. It is to be regretted that no cures were attempted by these magnets; for since then no one has succeeded in making such powerful ones. What became of these instruments afterwards is not known. The fivefold magnet is in point of size and power the principal instrument. Its power of attraction varies from 70 to 120lb. power; larger magnets are only necessary in extreme cases, or where it is wished to conduct the magnetic fluid to interior organs. In deafness, for instance, magnets from 200 to 500lb. power must be employed.

2. *Magnetic Staffs*—are only applicable in cases of toothach; and even here they may be dispensed with. A number of staffs bound together form what is termed the magnetic magazine, which, however, is of no use in medicine.

3. *Magnetic Plates* were chiefly used by Le Noble. Most of the cures effected by Andry and Thouret were performed with them. They are fitted to any part of the body; and are very useful where horse-shoe magnets cannot be applied—at the extremities, &c.

There are two kinds of treatment with the magnet. The one requires the application of large and powerful instruments, with which we operate from time to time; the other the continual influence of magnetism. The latter is produced by the patient wearing small magnets for some time on the part affected. The former treatment again is either topical or general. The topical treatment is performed according to the prescribed method—either using one or both poles at a time, and with one or with two instruments. One, or both poles are to be fixed at the same time on the part affected, or it may be treated by them in the same direction, always following the course of the nerves. One or both poles of a second magnet may also be fixed in such a manner that the part affected lies between the two magnets. According to the theory hitherto established, one should suppose that the “friendly poles” as they are called ought to be placed opposite to each other in order to lead a magnetic stream through any part of the body. Experience, however, the result of a series of experiments, convinced me that the magnetic stream exists between the same poles, the “inimical poles” as they are called. By placing the friendly poles opposite each other they mutually destroy themselves; whereas in the other case not a point is to be found which does not shew polarity. Commonly the patient stands with the parts affected towards the north, to bring the complaint into the stream of telluric magnetism. This is, however, not strictly necessary, because the power of the magnet is always superior to tellurism, and can derive no sensible aid from its influence. The eyes and ears require a peculiar treatment. The eyes are acted upon by first fixing the magnet for some minutes on the eye itself, and then passing it several times across the upper and lower edges of the eyelid, commencing in the corner of the eye. Last of all, the magnet may be passed several times, from the forehead downwards, in such a manner that both eyes are touched at the same time. Sometimes the desired effect is not obtained till the poles have been changed several times.

The ears are treated differently. The patient afflicted with deafness is seated between two magnets, so that the poles exactly fit on the small plates of two little instruments, which are introduced into the organ. These instruments consist of an oval disc, one inch long and half an inch broad, of soft iron, in the centre of which is fixed a blunt pin, one inch long and one line thick. These serve to conduct the magnetic fluid deeper into the ear. The operation may last from five to fifteen minutes; commonly until the

sensations caused by it have subsided. The magnet is then passed over both sides of the head downward, ending about the clavicle.

The treatment of the teeth also requires some notice. Usually, I fix the north pole first on the diseased tooth, and if the pain does not cease I then apply the south pole. Sometimes it is advisable to touch the gums with either of the poles, or pass them across the cheek where the pain is most acute. In applying the magnet to the teeth, it is better to warm it, because the peculiar coldness of the steel might otherwise augment the pain during the first few moments.

The general magnetic treatment ought to follow, in most cases, the topical application, particularly when the patient suffers from debility. For this, one or two instruments are requisite, according to circumstances. In this operation it is only necessary to observe that the north pole should always be turned towards the spine, and if two magnets be employed, the like poles must be opposite to each other.

The continual influence of magnetism is produced either by wearing small horse-shoe magnets, or magnetic plates, belts, rings, armlets, necklaces, &c. The mode varies according to the malady, and in any case must be determined upon by the physician. It would lead me too far, were I here to enumerate all the rules which have been prescribed or observed by different practitioners. For those directions I refer to the writings of Andry and Thouret, and Dr. Becker, which contain everything that is at all interesting on this subject.

Effects of Magnetism.

1. On the healthy.—2. On the sick.

The assertion, which till now has generally been received as true, that mineral magnetism has no perceptible effects on the comparatively healthy, is, according to my experience, altogether unfounded. The easiest way of proving this is by magnetizing the eyes of a healthy person. All objects appear in a clearer light, and the person magnetized believes that his eyes are freed from a dimness. Sometimes it causes in this organ a feeling of pressure, fulness, or warmth, and its power of motion is augmented. If we lead a stream of magnetic fluid from two, or, according to circumstances, four powerful magnets, through the body, peculiar sensations are excited, arising, undoubtedly, from the magnet—more or less shivering, particularly towards the spine, cold, warmth, and even heat. These same sensations are not felt by every one, they vary according to the constitution of the individual. Sometimes, however, all these sensations are experienced by one person, and in the order above mentioned, and last of all the individual will perspire more or less. The motions, immediately after being magnetized, are always quicker and more easy, and the sensibility to the changes of temperature is consi-

derably lessened. Some particularly plethoric subjects, complain a short time afterwards of being tired and sleepy: with most, however, this is not the case; on the contrary, they feel, for a longer or shorter period, in a peculiarly pleasant state, without any other consequences. These experiments require the most powerful magnets, even to four at a time.

2. On the sick, magnetism operates, like all remedies acting on the nervous system, according to the quality and quantity of its application; and is either soothing or exciting; this is proved by experience. The effects and phenomena which follow the application of magnetism are, therefore, not to be doubted: though many of the profession, Van Vysten in particular, ascribe all to the imagination of the patient. This supposition, however, is totally disproved by its efficacy when tried on little children and animals; on both of whom I have myself made many experiments. Magnetism, certainly, in common with every other remedy, derives advantage or disadvantage from the imagination of the patient. And physicians would do well not to despise so powerful a physical agent, nor consider it as belonging to the sphere of charlatans only.

In applying powerful magnets in the manner prescribed, the effects of cold and heat arising from the steel, cannot be considered material, because the application is made through the clothing; and such sensations, as they could be but slight, must naturally be very transient. Andry and Thouret, who performed most of their cures by means of the continual influence of magnetism, of necessity paid great attention to the share which the metallic properties of the steel had in producing magnetic influence: the question was decided in favour of the imponderable power.

Regarding the sensations produced on the sick, Dr. Becker says, "Very often the patient has at first no sensation at all: this, however, proceeds more from want of attention to his own feelings, for generally in course of time he experiences one or other of the usual sensations. When the magnet is merely passed over them, they seldom feel any thing; but only when it is fixed for some time in the same place." According to my own experience it appears that the sensations actually commence after some time, because patients who have been magnetized often, and whose attention has not been taken up by the novelty of the experiment, did not feel any thing at first; but after some time they always declared that they experienced some sensation proceeding quite distinctly from the magnetic influence, for, on the magnet being removed, the sensation immediately ceased. If the patient distinguishes quite clearly the sensation produced by magnetic influence from those proceeding from the mere act of applying the magnet; if, moreover, the pain be at

all great, it naturally follows that this only is felt so long as it is more intense than the sensations created by the magnetic influence. When the pain has disappeared, there follows that numbness of the affected part, which Dr. Becker has also observed, and which is very like that caused by cold, or by medicine containing lead.

The sensations experienced are, with some slight modifications, the same in all cases. They are the following:—

1. *Cold*.—Dr. Becker believes this to proceed from the cold of the steel only: according to my experience, it is felt also when the magnets are heated, or on their being applied through the clothing, as is usually the case. It is felt particularly by patients who suffer from disorders of the membranous tissues. In such cases the feeling of cold is very similar to that experienced in fever, and frequently all the symptoms of fever follow in succession.

2. *Warmth*.—This is most frequently felt in the eyes and ears. It is experienced mostly when the activity of the nerves is suppressed, and when the patient complains of general or partial cold.

3. *A Drawing Sensation*.—From the slightest degree, when it is a pleasant feeling, to the severest, when it becomes almost painful, like cupping. It is experienced when inflammation exists, and in toothach.

4. *A Pulsation*.—It might at first be taken for the pulsation of small arteries, but the throbs follow so quickly, that it cannot be mistaken for that. It appears before the pain changes from one place to another; and it follows very often the movement of the magnet.

Here I must remark, that there is no danger whatever of the pain settling on any of the interior or nobler organs, in consequence of its changing its seat.

5. *Actual Pain*.—Piercing or cutting: this however appears very seldom, and only in very susceptible nervous subjects, suffering from an entirely disordered nervous system, accompanied by extreme morbid sensibility.

6. *A Numbness, Deafness, or Insensibility in the Part Magnetized*.—These sensations I have observed also, but very seldom, and only when on account of the violence of the pain, I was obliged to fix the magnet longer than usual in the same place.

All these sensations, the last excepted, have this peculiarity, that they increase gradually, and then become weaker, till at last they disappear entirely; even if the magnet remain fixed in the same place during the whole time, if it be taken away they disappear in a moment. These sensations are not felt in all places, they change their locality. I am led to infer from this, that the sensation is caused only when the magnetic stream passes over the nerves which suffer most.

The continual application of the magnet produces effects which cannot be attributed

to magnetic agency only, because they are more evident when the instrument comes in contact with the skin, than when it is sewn up in some covering of silk, velvet, &c. From this it is quite apparent that the steel operates according to its other qualities, besides its magnetic property. Among these effects, I am disposed to include the changes in the excretions and secretions, arising chiefly in consequence of the continued de-traction of warmth. The effects observed from magnets placed under bedding on which the patient slept, would seem to contradict this remark; but they cannot disprove the experience, that a non-magnetic steel plate, worn on the præcordia, causes indigestion and diarrhoea, as I have myself experienced. Descemet has also observed, that a magnet worn too long near the stomach, causes indigestion, which must be removed by stomachics. The best effects from wearing magnets I have seen when powerful ones were applied at the same time; particularly in asthma, rheumatism, gout, and deafness.

From what has been said, the following conclusions and observations can finally be deduced.

1. The effects of the application of the magnet appears very often instantly.

2. These effects are not merely local. Many patients feel their general health improved, and parts which were before cold, have their natural temperature restored.

3. The nervous diseases in which magnetism has proved its curative powers, are those in which the sensibility or the mobility of the nerves was augmented; or in which the nerves were over-excited. To the first class belong *tic-doloureux*, headach, tooth-ach, pain in the stomach, hysterics; to the second, cramp in the stomach, general cramp; to the third, palpitation of the heart, whooping-cough, hysterical convulsions, epilepsy.

4. In other diseases also, caused by a weakness and want of energy in the nervous system, magnetism has been found very efficacious. For instance, in tumours, dizziness, fainting, numbness, weakness of the stomach, cold, shivering.

5. Some diseases, in which magnetism has been found beneficial, are not purely nervous, but have some material cause: e. g. gout, rheumatism, suppressed menstruation. In these, the magnet removed often, only the nervous affection, but could effect nothing against the original cause of the disorder.

6. If it cannot be positively affirmed that the magnet produces all the effects mentioned, because the experiments have not been sufficiently numerous, it is nevertheless proved, that magnetism has a decided and certain influence on the nervous system.

7. On the whole, we must ascribe to the magnet, as its essential property, a calming, and at the same time, enlivening effect, which stands closely allied to that agency we call

nervous power. And although the effect of magnetism in some cases has been only palliative, there can nevertheless be no doubt, that if applied in the right place, and with sufficient power, it is able to cure radically. My own experience has proved this to be the case in rheumatism, neuralgic affections of all kinds, cramps, diseases of the eye, deafness, &c. Indeed, it is my firm conviction, that in the diseases I enumerate, it deserves the preference before all other remedies.

Dr. Schmidt then proceeded to illustrate his views by experiments; and the discussion was finally adjourned to the next meeting of the Society, on Saturday, November the 21st.

—o—

MEDICAL BOTANY.

PLATE IX.—*ÆTHUSA CYNAPIUM*.

(Fools' Parsley).

Fools' parsley, so called from the deleterious properties of the plant, and the resemblance it bears to *parsley* (for which it is sometimes unfortunately used), is an annual plant, common in gardens and cultivated grounds in every part of Britain and Ireland; flowering from June to September. From a root which is slender and spindle-shaped, the stem rises to the height of two feet: it is erect, striated, and generally of a dark purple colour at the base. This plant being so abundant a weed in rich garden soils, is frequently mistaken for common parsley, and therefore deserves to have its character and noxious qualities universally known and exposed. Although it bears a strong resemblance to the garden parsley, it exhibits differences in its botanical characters, by which it may at once be distinguished. The leaves of fools' parsley are finer, more acute, decurrent, and of a darker green; and, instead of the peculiar parsley smell, have, when bruised, a disagreeable odour. When the flower-stem of the fools' parsley appears, the plant is readily distinguished from all other umbellate plants, by what is called its *beard*, three long, pendulous leaves of the involucre under the partial umbels. The flowers, too, of the fools' parsley are white, those of the garden parsley pale yellow. In order to prevent mistakes, it is best to cultivate the *curled* variety of the common parsley only, as it not only possesses the same virtue, but also makes a more elegant garnish. Buckhave states, that "a boy, six years of age, having eaten this plant at four in the afternoon, which he took for parsley, began immediately to utter cries of anguish, and complain of cramps in the stomach: while he was going to his father's house, the whole of his body became excessively swelled, and assumed a livid appearance; his breathing became every moment more difficult and short, and he died towards midnight. His tongue was black; a brownish serosity was found in the stomach, and the

liver was hard and of a yellow colour: the spleen livid; but the body was not at all emphysematous." When eaten in small quantities, it occasions vomiting, which may be stopped by a very large dose of brandy. Most cattle eat it: yet it is said to be very deleterious to geese.

—o—

THE NEW POOR LAW.

To the Editor of the London Medical and Surgical Journal.

SIR—My last letter on the subject of the new poor law, drew from you two queries, which I shall notice as concisely as possible, previously remarking that the first implies a perversion of my argument, therefore demands not a categorical reply. I did not contend that the practitioner of yesterday was fitter for the practice of his profession than his senior of twenty years' standing; but I stated an indisputable fact when I said that such a man had generally little time to spare among the paupers, therefore they were given over to the care of an assistant. Further, I asserted that the poor would be better treated, more diligently attended by a young man in practice for himself. These assertions remain undisputed. Now to your second question, "Do I suppose that young men who have received diplomas are competent to treat disease?" A diploma in itself is no proof of competency in the healing art, whether its possessor be old or young. "The law," you say, "presumes it is; but the profession is of a different opinion." I do not know whom you call the profession, but let us divide it into a senior and a junior class, I am sure there will be found a majority of the latter. Do you think that majority will coincide with you? No, no, it will be of a different opinion.

Now, Mr. Reviewer, since you have ranked yourself among the "exclusives," I do trust you will clearly answer the very few questions I have to ask but; which nevertheless, deeply concern the interest of junior practitioners, for were the public once to embrace your views, "Othello's occupation would indeed be gone."

Suppose, then, a young man after five years' apprenticeship, and two more spent in hospitals and lectures, obtain his diploma, the law presumes him competent to treat disease, but you say, no, not experienced enough to treat the parish poor. Well then, Sir, I ask, What is he to do? What steps are next to be taken? Where, and, how many years of his noviciate are yet to be endured?

Why, in this particular instance, under the new poor law, young practitioners should be deemed culpable or incapable because they undertake office at a lower sum than older men are willing to accept, I cannot conceive. We see the same thing done every day at our own doors: you know, sir,

there are physicians in London who visit twice for a guinea, others only once—the former being generally young men, the latter more advanced in years, ergo, more experienced—more competent to treat disease. Would you advise the public never to consult gentlemen of the first class while their elders are to be had? Would you say, these men are dear at any price? would you counsel all, when a consultation is requisite, to call in only the experienced head of age, overlooking the acknowledged talents of younger physicians, by whom we are surrounded? No, sir; what man knows better than yourself that, as a diploma is no proof of medical skill, neither is age. The possession of a diploma added not one iota of strength to the genius of an Armstrong, nor would fifty bestow his talents upon many who sought to crush him.

I remain, Sir,

Yours, &c.

W. DYER

Liverpool Road, Nov. 12, 1835.

—o—

MEDICAL REFORM ASSOCIATION.

To the Editor of the London Medical and Surgical Journal.

SIR—After a patient perusal of the various Essays forwarded to the Medical Reform Association, the Committee of Examination have decided that there are not any three deserving the prizes, although many deserve considerable praise from the talent and research displayed.

It is my duty, therefore, to inform the Essayists that they can obtain their Essays by sending a note, with the motto, when any more specific communication that it is necessary to make will be made.

I am further directed to communicate the fact that the 100l. will still remain in the hands of the Treasurer, Joseph Hume, Esq., M.P., and that the Association will be happy to receive any Essays on the question originally propounded, which must be delivered in to the Secretary before the end of December, 1836.

Further particulars I shall take the liberty of requesting the insertion of in the pages of your Journal, in the course of a fortnight or three weeks.

And I have the honour to remain,
Sir,

Your obedient Servant,
JOHN EPPS, M.D.

Hon. Secretary to the Medical Reform Association.

89, Great Russell Street,
Nov. 17, 1835.

—o—

CORRESPONDENTS.

Chirurgus.—All the lectures are recognized at the Royal College of Surgeons and Apothecaries' Companies in Great Britain and Ireland.

London Medical and Surgical Journal.

No. 200.

SATURDAY, NOVEMBER 23, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXIV.

*Treatment of the Inflammatory, Bilious, Mucous,
Cerebral, Miliary and Dysenteric forms of
Gastro-Enteritis. Convalescence from the
Disease.*

I HAVE not yet exhausted what I have to say concerning the treatment of acute gastro-enteritis and its cure by stimulants. This cure, as I told you, is the effect of a crisis produced by the stimulation and sympathetic influence of the stomach, to obtain which, it is essential that phlegmasia should not predominate in that organ: its irritation then extends to the secretory apparatus by which the crisis is effected: or if this does not take place, the heart, whose action is augmented by these stimulants, induces an hemorrhage, or else an external inflammation is developed. Moreover, the stimulation of the stomach is more tolerable when previous evacuations have been practised.

There remains something to be said relative to the different forms of gastro-enteritis.

Inflammatory fever, which you must needs imagine, is a form for the most part common to several visceral inflammations on their onset. It is a kind of inflammatory state, of no great intensity, of the mucous membranes of the viscera, or of the viscera themselves, in which the cellular tissue takes no part, and together with which there is neither catarrh, nor pneumonia, nor pleurisy, nor carditis, nor encephalitis: for if there were anything of the kind, the authors who have allowed the existence of an inflammatory fever would have said so. But because they do not say so, does it follow that there is only a febrile movement without any local affection? I certainly think not. In fact, no inflammatory fever can be quoted in which there is not some redness of the tongue and where thirst does not take the place of hunger, and where, consequently, there is not a super-stimulation of the gastro-intes-

tinal mucous membranes, and especially of the upper portion, a super-stimulation which is nothing more than an incipient inflammation, not sufficiently intense but that it can be arrested by a general bleeding, or the application of leeches to the epigastrium.

Sometimes when we trust to nature for the cure of these supposed fevers, something besides a gastro-enteritis may ensue: the inflammation may become predominant in the head, and in a few days afterwards, in the lungs or in some other organ; but, at present, we are speaking only of the commencement of the disease. You may ask me whether there is not an inflammatory fever, which is nothing but an effervescence and inquietude of the blood, in which all the living molecules are excited by that fluid, without any lesion or affection of the solids? Absurd! you have simply a simultaneous irritation of the mucous membranes and the brain. But it is not, as has been affirmed, a phlegmasia of the vessels? If it be so you will soon detect it; you will have the signs of carditis, arteritis, or phlebitis that will have commenced with the symptoms of inflammatory fever. But why advance this supposition? Wherefore create entities? So long as this is done there will be no understanding each other; for four thousand years medical men have been disputing, and they will dispute to the end of time, unless they have some more fixed idea of diseases. When a man comes to me with red tongue, thirst, loss of appetite, halituous skin, acceleration of the pulse, without the mouth even being bitter, or the epigastrium tender, I pronounce him to be labouring under an attack of gastro-intestinal irritation. You may tell me the want of appetite, the thirst &c., do not proceed from irritation of the gastric apparatus, but from acceleration of the course of the blood. There, I have you on the hip—run, dance, take a vapour bath, accelerate as you will the circulation, and you will see whether it will take away your appetite. This assertion, or, as some call it, argument, is worth nothing.

When a patient that is said to be affected with inflammatory fever is presented to you, you must hasten to discover the seat of irritation; and if you seek properly you will readily find it. After this you must not wait for a favourable crisis, but bleed at once;

for the blood is in a state of commotion, and though it does not produce gastro-enteritis, it may produce encephalitis or some other affection, because there is a simultaneous influence of an inflammatory irritation.

As regards the bilious form, I have already answered the question, whether, when the bile regurgitates, it is necessary to have recourse to emetics. I do not give an emetic twice in the year for this purpose, and yet I treat hundreds of such cases. A simple application of leeches to the epigastrium dissipates these symptoms; and if they continue it is because there is a predominant gastritis, and if they return, it is because the patient has been badly treated; in either case they are to be combatted in the same manner but with greater activity. You ask me, do you then never allow of emetics, though success has followed their employment? Yes, I do, when the disease is not intense, and in particular circumstances; but when it is even moderately intense, the patients, if they do not die, are thereby driven into a more serious state; I, therefore, do not see the necessity for emetics. Besides which, they may cause laceration, or perforation of the stomach, or determine the rupture of an aneurism; accidents of this kind I have seen. Since physiological physicians have raised their voices, these irritating medicines are no longer administered with the same rashness as formerly; they are scarcely ever used except in desperate cases of peripneumonia after bleeding has been urged to the utmost limit, and, above all, when the stomach is in sound condition, agreeably to the maxim, *ancps remedium melius quam nullum*; away then with emetics in the bilious variety of fever. If spontaneous vomiting comes on encourage it with warm water; this eases the patient. You will conclude that it would, therefore, have been well to provoke it: not at all: if nature chooses it, aid her gently, but do her no violence. Were you to excite vomiting in all your patients, in less than every thousand there would be one that would die in the act.

Does the mucous form require any specific medication? There are aphthæ for which local bleedings are necessary as well as lotions, at first emollient and subsequently astringent. There are catarrhs, particularly cystitis, that also require their particular treatment. But ought we to fly to drastics that excite the secretions and the mucous evacuations? I see no necessity for it; better to destroy the irritation that generates these matters; in the end they always evacuate themselves. By giving a purgative you may cause a phlegmasia that was on the point of terminating to retrograde; with purgatives and emetics we can answer for nothing*.

Does the cerebral form require a particular treatment? You should first of all act upon the epigastrium and then upon the head, unless the encephalic congestion be too predominant from the commencement. Most frequently this congestion is owing to the state of the gastric passages: I have at this very time a patient who has twice given me proof of it. He had been attacked with gastro-enteritis, with cerebral congestion, which an application of leeches to the throat dissipated. During his convalescence he was again seized with cerebral congestion from which he was again rescued by a second bleeding with leeches. This is more espe-

which most practical men must differ from him. It is opposed to facts, and is, moreover, no necessary deduction from his doctrine of fever. On all occasions he professes to draw his ideas of internal inflammation from the same phenomenon as developed in external parts. Now, there are many cases of cutaneous phlegmasia in which he extols the use of the nitrate of silver, one of the most potent irritants of the *materia medica*. He has, therefore, no good ground on *theory* for his expressed horror of purgatives, in their character of irritants, in internal phlegmasia; and *practice* is assuredly against him. Besides he puts altogether out of sight the physiological fact, that morbid secretions—the result of irritation—incessantly react upon the tissue that secretes them, and maintain or more possibly increase the abnormal condition that generated them. General and local bleeding with plentiful dilution may certainly reduce the irritation or inflammation of the intestines, and render less noxious their morbid secretions, but so long as the latter remain in any quantity or of any quality, the former is always liable to be renewed. Instead, therefore, of saying that “with purgatives we can answer for nothing,” it should rather be “without purgatives we can answer for nothing.” So, on the one hand, reduce the phlegmasia, by the positive part of the Broussian practice, and on the other, avoiding the *negative* precept of the same—to rid the bowels of their irritating contents, appears on sound theoretical and practical grounds to be the more rational treatment. At the same time it cannot be denied that in Britain, more especially, purgatives are too often given with a recklessness that sets at defiance alike the precepts of national and empirical medicine; and it would be well were the enormous doses of calomel and the resinous drastics made to give place to castor oil, manna, and similar mild laxatives, aided by the copious dilution above recommended.

M. Broussais' objections to the frequent use of emetics will be supported by all those who have seen—and there can be few who have not—their transitory beneficial, but, ultimately, injurious effects. J. M. G.

* This prejudice against purgations is a weak point in M. Broussais' system, and one on

cially applicable to children: in them, if the gastritis be severe, a cerebral congestion soon comes on; put the leeches to the epigastrium and it will disappear; if it persists, place them on the throat, or behind the ears. But remember, that as long as the congestion of the stomach remains, that of the head will not entirely cease; the connexions of the stomach with the head are more rapid and intimate in infancy than at other ages.

As for the nervous phenomena that arises towards the close of the disease, and are owing to the alteration of the mucous membrane, you cannot hope to do away with them, and above all, refrain from stimulating the mucous membrane with purgatives. You have nothing else to do than to produce revulsion by the application of heat to the lower extremities, and making proper use of cold, if the patient be not disposed to catarrh.

Neither the miliary, nor the petechial variety require any thing specific; they are owing to heat, and appear in the summer. Adhere to your resolution of destroying the visceral irritation.

The dysenteric form is frequently very intense. It is sometimes determined by epidemic influences and then constitutes the dysenteric epidemics, descriptions of which are to be found in the works of Tissot and Zimmerman, who have not described the pure dysentery, limited to colics and alvine dejections, but dysentery with fever, delirium, and nervous symptoms, in such a manner that it has been mixed up with malignant fever—a chaos which the physiological doctrine alone can bring into order. When circumstances favour the irruption of colitis—for instance, had nourishment, moist, cold, alternating with heat, as happens at the beginning of spring, and the close of autumn, when cold nights are opposed to warm days, you often see gastro-enteritis commence in the lower region of the digestive canal, or the great intestines. It is no longer a slight diarrhœa, proceeding from above, as in the supposed dothinentery, but a painful tenesmus with incessant desire to stool and impossibility of passing more than sanguinolent mucosities; to which are added, more or less violent colics, pains of the loins, thighs, and legs, anxiety, and restlessness, and sometimes dejections of pure blood.

One thing had struck Zimmermann—the non-evacuation of the matters contained in the colon; the irritation is confined to its lower extremity, and there is no effort to drive downwards the matters retained within the whole circle of the intestine. In this state of things, several events are possible: 1. The inflammation may proceed so rapidly, that the patients, without having any fever, die with horrible colics, convulsions, and gangrene of the colon. Of this I have seen one instance: it was that of the patient who for several days had suffered frightful agony, and had only evacuated the lower portion. Care had not been taken of him, because in the army, where the case occurred, the ne-

cessary means are not always at hand; and he died with the colon gangrened through its greater extent, and filled with fœces; but the disease very rarely exhibits such intensity as this. 2. After some violent fits of tenesmus, succeeded by no stercoral evacuations, the latter at length arrive; a disengagement of the digestive canal takes place, and the patient is relieved. Proceeding on this fact, Zimmermann laid down the maxim that purgatives were the best remedy in dysentery: the disease being confined to the inferior portion, he produced revulsion by exciting the superior portion. It was not because the matters were expelled, but because a pancreatico-bilous and mucous flux from above caused the resolution of the congestion below. He then gave emollients, sedatives, and narcotics, and then again returned to purgatives. This was also Sydenham's practice, who had specialised the facts. Tissot said that the disease was wrongly attributed to fruits, for that they were the best remedy against it; he says he saw a whole regiment of soldiers that were affected with dysentery, cured by eating the grapes of a vineyard where they were halting. These are certainly interesting facts, but they by no means answer any question. Such means may succeed when the phlegmasia is confined to the lower extremity of the colon: but it frequently does not stop there; inflammation holds no compact with malady-makers. An individual who appears only to have a dysentery, is often in a febrile state in spite of the purgative, or before its administration; the irritation, starting from below, finally predominates above, and becomes a gastro-enteritis. Some have attempted to make entities of such cases, and, by amalgamating essential forms with dysentery, to establish bilious dysenteries, adynamic, ataxic dysenteries, &c. You perceive that the fact in itself has been observed, but has not been understood. When a patient comes to you, you know not what is going to happen; but you have a duty to perform—to combat the inflammation in its locality. If therefore an individual comes to you without fever or symptoms of gastritis or enteritis, and with strong tenesmus, instead of running the risk of a purgative or emetic, which would perhaps bring the inflammation upwards, combat the partial colitis with antiphlogistics. You can have no idea of the beneficial results of this practice: by an application of leeches to the margin of the anus, you immediately destroy an inflammation from six inches to a foot in extent; the matters contained in the digestive canal find their own exit, and the patient is cured. Hereby you dispense with the purgatives recommended by Zimmermann and Tissot for the purpose of evacuating the bile, to the acrid quality of which, they attribute the disease. Leeches, therefore, to the anus, and emollient enemata should be your practice. Suppose the phlegmasia not to be confined to the inferior

portion of the intestine, but extended to the superior, constituting a gastro-enteritis; you will then attack the latter, without troubling yourself to seek out a lost entity or to discover a new one.

Proceed we now to the conduct of convalescence from acute gastro-enteritis. When there has been no stupor, adynamy, in short, no cerebral symptoms, you may allow alimentary fluids as soon as the appetite reappears; but when ataxic and adynamic symptoms have existed, and the patient comes out of his stupor and demands food, you may also begin, but more tardily, with nutritive liquids of lighter quality, for the simple reason, that the autopsy shows that the inferior portion is not cured when the superior is, particularly if the disease has commenced with diarrhœa and meteorismus, and if the latter has continued. Indeed, whenever meteorismus—not that from below, proceeding from the colon, but that of the umbilical region—has persisted during the disease, be assured that inflammation has predominated in the intestines; and if a patient so affected, asks you whether he may eat, after ten days or a fortnight of such meteorismus, have a care how you grant his request. When the proper times arrive, give him only a spoonful of milk, with five or six of gum or barley water. The meteorismus gone down, and the belly pliable, you may go on to broth, and after that to light soups.

Now that your patient eats something, he will be tormented with a voracious appetite; notwithstanding which, when you are certain that the intestines have undergone great suffering, when some diarrhœa remains, with a tendency to the reappearance of meteorismus, you must be especially cautious in returning to food properly so called. I do not here speak of sensibility, because it is too various: I have read in some work, that it is met with when the patient has been treated in the mixed manner; but what is certain, is that it does not exist at all, or not beyond the first few days, when he has been antiphlogistically treated. If the patient has had diseased intestines, you should keep him for a week or two on the lightest aliments, on rice, well-boiled meat, &c., and continue this regimen until the frequency of the pulse has entirely ceased, and you are beyond the fear of perforation.

When you have reduced an incipient ataxic or adynamic gastro-enteritis or dysentery, by the application of leeches, and you find the patient on the following day free from fever, upon no account give him food—confine him to water, however weak he may be. You will hear physicians saying, that tone should be given to him because he has lost blood, and is not feverish; but I say, unless the loss of blood has been excessive, leave him in his debility for some time, and then only give him a spoonful of weak broth or milk diluted with water; for, as milk coagulates in the stomach, it

might be better to give the broth mixed with three parts of water. Wait a day or two until you see the patient get up in his bed before you allow him anything else. This method applies to children and old persons as well as to adults, without consideration of sex or climate.

If patients eat too freely during convalescence, they may have fatal indigestions. Death then exhibits some interesting considerations, and a phenomenon of vitality, that has not, perhaps, been sufficiently explained. Convalescents have been known to die after eating hot bread, and coarse food of vegetable nature, without the stomach subsequently presenting any alteration. The death of such, I believe, to have been owing to a nervous irritation, and to be the consequence of the irritation or the pain. But accidents of this kind are more rare than is generally thought, and we need not be too quickly alarmed at an indigestion. More frequently the patients have vomiting or diarrhœa, with some colic, and on the following day the pulse is accelerated—they have digested, but with a certain degree of irritation. In such cases you will have no occasion for purgatives nor leeches; merely leave them on low diet, give them eau-sucrée, emollient clysters, and in the course of a day the appetite will return. In other cases, something else will occur; the stomach will remain full, which you may ascertain by pressing and percussing the abdomen, or by the cructations that take place; you must then stimulate the stomach in order to produce vomiting—this is a case for emetics. If the patient has taken putrescent aliments that exhale ammonia or sulphuretted hydrogen gas, it will be proper to expel them from the stomach by means of acidulated drinks and purgatives.

Convalescents should not be too much fatigued by exercise, which should be graduated according to the progression of the strength.

Chronic Inflammations of the Digestive Canal in General.—As it is my intention to treat fully of this subject, I shall, after having described the ordinary gastro-intestinal phlegmasiæ, exhibit them under the influence of causes that give them a specific character. The question now before us is the chronic inflammation of the digestive canal. I do not pretend to exhibit a line of demarcation, founded on a difference of nature between them and the acute; but as the indications as well as the symptoms of both decidedly differ, each should be treated separately.

Chronic inflammation of the digestive canal may be primary or consecutive on the acute state. When primary it depends on the same causes as acute gastritis or gastro-enteritis, only that these causes are less active, or, falling on a subject less predisposed to the acute state, they act with less intensity. In a slightly intense shade it may last a long time; a phlegmasia of this kind, which does

not disorganize rapidly, and which makes no sensible progress in the space of twenty-four hours, has no tendency to become acute: and this it is that authorizes the physiologist to say that inflammations may be chronic from the onset, that is to say, they may have so little intensity as to continue for a long time without altering the tissues.

These primary chronic phlegmasiæ may develop in any of the three regions of the digestive canal, and be the preliminaries of acute inflammations; or, to express the same in other words, an individual with an inflammation of the digestive canal so slightly intense as not to hinder him from attending to his affairs, and cause no fever in him, may suffer two different fates—the inflammation may either pass into the acute state, or it may remain chronic. If it passes to the acute state a manufacturer of entities would consider it as the prodroma of that state, whereas a physiological physician would regard it as the same disease in different degrees. In order to throw light on this question, give the latter twenty patients attacked with chronic gastritis, enteritis, or gastro-enteritis; of these I suppose him to treat ten in whom he will arrest the phlegmasia, and to leave the ten others without treatment. Five or six of the latter will pass into the acute state. Suppose now, that the ten former who have been cured had not been treated, or had been treated differently, in this case also there would have been more or fewer in whom the disease would have become acute, and the ontologist would have given to the symptoms of this disease the name of prodromata. He has not given it, because it has been cured: still in both cases the thing is the same, as far as it is possible for diseases to be alike. Herein you observe the difficulty and contradiction in which the makers of diseases plunge, constructing, as they do, an entity on a certain number of cases that go on to death. They announce their predictions *apres coup*—they are prophets after the event.

Chronic gastro-intestinal inflammation consecutive on the acute state, is seen under different circumstances: 1, when the acute state has been imperfectly cured; 2, when too early stimulus has been used in convalescence, and the disease has been thus returned to the chronic stage; for it is difficult for an individual to have twice in quick succession the same disease in its acute character—his powers are insufficient. The foundation is always the same, though the form is not; the disease remains in a chronic condition, as well as that consequent on imperfect treatment, so long as there is nothing to change it.

These inflammations may occupy the entire mucous membrane, or its three divisions at once; this, however, is rarely the case: most frequently their presence is confined to one. When general they are al-

most always purely inflammatory, but at a less degree. When partial, they are at the same time inflammatory and subinflammatory, that is to say, that being circumscribed to one point of the canal, and holding to that point with persevering obstinacy, they produce in their vicinity lymphatic hypertrophies, cellular and tubercular enlargements, as also engorgements of the appendical parenchymata of the digestive canal: whereas when the inflammation is extended equally over the mucous membrane, it rarely tends to such degenerations. Understand, however, that when I say that partial and circumscribed gastro-intestinal phlegmasiæ produce indurations, thickenings, or tuberculous alterations, I do not mean to affirm that they necessarily and always do so: such results depend on the individual.

General Chronic Gastro-enteritis.—Proceeding to the descriptive part, we commence with general chronic inflammation of the digestive canal. It is not always vigorously general: but still less is it fixed in one region: it is disseminated through several portions, and ambulates, as was seen in the acute stage: in some cases it is altogether and utterly general. It is more particularly met with in warm countries and during the summer. These are the symptoms: redness of the tongue, which is pointed and contracted, with large reddened follicles at the base; redness of the gums, lips, and eyes; complexion of the skin and countenance inclining to reddish-brown; belly drawn in; no meteorismus; depression of spirits; features lengthened; face dry and shrunk; the patient is motionless, like a mummy, taciturn, stupid, and looks at you like an idiot: he is unable to eat, or vomits almost everything he takes; he even sometimes goes to stool, but has no tenesmus; frequently has a slightly febrile commotion, which, for the most part, comes on in the afternoon; he has vague shiverings mixed with heats, especially if the phlegmasia be not too general; after taking some food or drink he has in the evening a kind of exacerbation, with dry and hot skin, which on the following day disappears; he has variable pains, fixed in no particular region, and constituting rather a sense of uneasiness than actual pain; the abdomen can frequently be pressed without causing any, or pressure even gives relief. At the end of two or three weeks he sinks into a complete marasmus, and actually seems to dry up; he is said to be attacked with hectic fever, and he dies.

After death a general redness of the digestive canal is found, the canal itself contracted, for the most part with nothing in it, and so diminished in calibre that it is scarcely possible to introduce a quill into it.

This shade is rare in this climate, though it is occasionally observed, particularly in those who have abused strong stimulants, such as spirits and wine, in hot weather. It

is not so difficult to cure as you might imagine: the most efficacious treatment is by strict diet and some bleedings.

To this is allied enteritis, without fever or meteorismus, and with retraction of the abdominal parietes: it is the same disease confined to the intestines. Patients have constant pains which do not extend to the anus, and are not followed by tenesmus nor desire to stool: their pulse is slow, beneath the normal condition: I have seen it not exceeding thirty-five beats in a minute: they are debilitated, and in a state of extreme malaise. If the phlegmasia be not arrested it becomes general in the digestive canal, and may pass to the acute state. This shade is cured in the same manner as the preceding. Local bleedings are of more use than general. If you neglect to follow this method of treatment you fall into polypharmacy: some will tell you they have a nervous colic, others a brass colic, others a lead colic, others, again, an iron colic; they will take opium, calomel, emetics, purgatives, &c., yet the disease does not stop; instead of which, if you pursue the rational treatment, you will soon put an end to the disease, and it will only have been like a tempest in a glass of water. Nevertheless, when this affection has lasted for a long time, and has left a blackish tinge on, and a scorbutic state of the skin, it is incurable.



A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By William Stoker, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

(Continued from page 521.)

Period from 1798 to 1834, inclusive.—Medical statistics.—Their deficiency in Dublin a chief cause of abuses in the direction and management of public institutions, originally devised for the prevention and cure of epidemic and pestilential diseases.—These abuses exemplified by the records of the Fever Hospital and House of Recovery in particular, and also by the statements promulgated by the general Boards of Health, especially in the years 1817, 18, 19, 31, 32, 33, 34, and 35.—Concluded.

STATISTICAL inquiry has become, of late years, interesting and instructive as generally as its application to improvements in the state of society, even in the most civilised countries. I, therefore, very willingly aided the commissioners appointed by government, to extend its benefits to this country, as far as long experience and close observation in the chief charitable institutions of Dublin enabled me; and this section is chiefly compiled from my replies to

their queries. The defects of statistics in the British metropolis, since the commencement of the 19th century, are deprecated by all who have been anxious to learn the causes of its immense population and wealth, and surely the total neglect of even bills of mortality in the Irish metropolis is much more to be deplored by all who feel desirous to know the causes of its comparatively slow advance, either in wealth or in population, during a period in which the number of the inhabitants of Ireland is stated to have nearly trebled, with a view to promote its prosperity. In drawing up the annual reports of the Cork-street fever hospital and house of recovery since it was opened, in 1803, I have often complained of the deficiency in Dublin of bills of mortality, and endeavoured to remedy it as respected that institution; and now, under the hope of obtaining more attention, I do not hesitate to express my opinion, founded on all my experience for nearly forty years as student and physician in the chief of our charitable institutions, that to the want of well kept registries or medical statistics, is mainly to be attributed the sufferance of increasing misery and mortality which have occurred among the sick poor of Dublin for the last seven and thirty years, but more especially within the last twelve. By correcting the mischievous errors and prejudices which unfortunately guided those intrusted with institutions intended for prevention and cure, but more particularly the otherwise valuable one to which this section will be chiefly confined, statistics would have been most salutary. Instead of wasting in vain the funds, munificently supplied by the humane and affluent, and by government, I am sure these institutions would, of themselves, have been sufficient for the attainment of the great objects for which they were first designed.

The failure of the fever hospital and house of recovery, in Cork-street, contrary to the ardent hopes with which, in my youth, I joined it, on its first opening, namely, to avert those calamities which had previously to a very remarkable extent both depopulated and demoralized it, is manifest in the comparative view afforded by the census of 1798, 1804, and 1835. This failure I have repeatedly stated, in vain, to the managing committee, and to the members of the Irish government, to have arisen from causes wholly beyond its control;

“Statists, indeed,
And lovers of their country, as may seem.”

The following comparative view taken also from authentic documents will, I trust, gain more attention.

The population of the original district of the Cork-street fever hospital, the first of the kind opened in Dublin, comprising the five parishes of St. James, St. Katherine's, St. Audeon's, St. Nicholas Without, and part

of St. Nicholas Within, of St. John's, and St. Peter's, especially in those parishes heretofore chiefly occupied by manufacturers, such as St. Katherine's and St. Luke's, not only has not increased, but actually diminished in the last seven and thirty years. This will appear by comparing Dr. Whitelaw's census in 1798 with that by the commissioners appointed by government in the present year, 1835, (e.g.) The total number of inhabitants in St. Katherine's in 1798, was stated in Dr. Whitelaw's tables to be 20,176, but in the same parish, as at present appears by the tables of the commissioners appointed by government, the number of inhabitants in 1835 is but 17,800. In St. Luke's parish the inhabitants amounted in 1798 to 7,241, but in 1835 the inhabitants amounted but to 6,605. As the relative state of these two parishes in 1798 and in 1835, consisted at the former period, chiefly of weavers and other manufacturers, must be particularly interesting at present, the following table is extracted from one of Dr. Whitelaw's, constructed in 1798, and from the census taken by order of government in 1835.

I should further premise that, did the occasion allow, the progress of the depopulation of the liberty, about to be exhibited, might be exemplified, not only by individual cases of actual starvation, but of the total disappearance of entire families under the pressure of famine, and its close attendant, pestilence. Such exemplifications having added to the interest excited by the replies of the physicians, on the same subject, in the rural districts of Ireland, I regret the more, being precluded from attempting to enter on them, on the present occasion. To the annual reports of the fever hospital, on which I have already so often relied, I beg to refer for explanation, on this part of the subject especially, to the medical report for the years 1804, 5, and 6, by the physicians then attached, and to that for 1815, by Dr. Robinson, M.D. (See Appendix, Note H.)

Parish of St. Catherine and St. Luke.

Index to Tables.	Upper & Middle Classes.			Servants of ditto.		
	Mls.	Fs.	Tot.	Mls.	Fs.	Tot.
1798						
1	991	846	1837	378	660	1038
2	150	148	298	32	75	107

Parish of St. Catherine and St. Luke.

Index to Tables.	Lower Class.			Tot.		Total.
	Mls.	Fs.	Tot.	Mls.	Fs.	
1798						
1	7608	9693	17301	8977	11199	20176
2	2846	3990	6836	3028	4213	7241

No. of Houses.

Inhabited.	Waste	Average to a house.
1481	140	13-62
454	41	15-95

St. Catherine's.

1835	Establd. Church.	R. C.	Pres.	Dis.	Total.
3	4165	13334	115	186	17800

St. Luke's.

1835	Establd. Church.	R. C.	Pres.	Dis.	Total.
3	940	5645	5	15	6605

This decrease of inhabitants since 1798, amounting in St. Catherine's to more than 2500, and in St. Luke's to 636, cannot fail to incite public attention; but if the proportion of the upper and middle classes, and their servants, stated by Dr. Whitelaw in 1798, and still more if the absence of prostitution in the liberty at that time, which he also affirmed, be compared with its present state of degradation, especially of the female part of the population, it cannot fail, I hope, to excite not only the commiseration of all the humane, but the active interference of those who have power to interpose, or knowledge to suggest some adequate prevention and remedy for such deplorable declension. (See Appendix, Note H.)

Many of the houses in the liberty have fallen into ruin. All the remaining parts of the city within the Circular-road, were subsequently included in the Cork-street fever hospital district, and by comparing the population of Dublin, in 1753 and 1798, with that in 1835, as given in the following table, the increase in the intervals may be perceived, viz:—

By Dr. Rutton, in 1753, population } 128,570

Total population of Dublin, in 1798, according to Dr. Whitelaw's census, } 182,370

In 1835, according to the report of the Commissioners by Government. } 234,408

By this table it appears that the increase of the population of Dublin, in the interval between 1753 and 1798, a period of 45 years, amounted to about 53,800, and that in the interval between 1798 and 1835, an interval of 37 years, it amounted to 52,038. Now from all that is certainly known of the population of Ireland since 1753, it appears that its increase was beyond all comparison more rapid than is exhibited with respect to the metropolis in the above table. But I wish more particularly to observe here of the dispropo-

portion between the increase of population in the country in general, and in the metropolis since 1822, when, as will appear in the subsequent part of this report, that the epidemic diseases of Dublin assumed peculiarly fatal and pestilential characteristics. In 1821, the population of Ireland, then amounting to 6,811,827 is said to have been nearly double what it was at the commencement of the 19th century. In 1831 it was found to amount to 7,784,539.

There is a table inserted in the Rev. Dr. Whitelaw's Essay on the Population of Dublin, shewing the decrease between 1798 and 1804, which I shall beg to extract as a further illustration of the causes which led to the erection of the fever hospital and house of recovery, and of the necessity there was of duly estimating them in the subsequent direction of that institution:—

	Houses.	Inhabits.
Population according to my Survey in 1798: Dr. Whitelaw's Essay, page 25.	14,023	170,361
Ormond Market not returned by me, taken from the Conservators' Survey.		
Spring-garden, not returned by me, as lying beyond the Circular-road, but properly a part of Dublin, taken from ditto.	33	444
	345	1,286

Total population in 1798 16,401 172,901

	Houses.	Inhabits.
Population according to the Conservators, in 1804, supplying deficiencies, as in preceding page.	16,234	172,042
Population of the district of Harold's-cross, with that of Sandymount and Black-rock, deducted as not being parts of Dublin.		
	589	4,143

Total Population of 1804 15,645 167,899

The return of 1798, therefore, exceeds that of 1804, by ————	756	4,192
--	-----	-------

Indelible remains of the history of the six years embraced in the above table sufficiently manifest the miseries of civil war to have been the chief concurring causes of the depopulation of Dublin at that time; and without attempting to trace back to any preceding link, it is important to establish even this single one of connection between them, and the unprecedented and calamitous growth of epidemic diseases described in the next table, which took place since the open-

ing of the Cork-street hospital for the reception of patients, and was registered in the annals of that institution from 1803 to 1816 inclusive.

The following table is in many respects the counterpart of that inserted in another part of this sketch; both were constructed from my annual reports of the fever hospital and house of recovery, as to the admissions, deaths, average mortality, and successive changes in the causes and nature of the prevailing pestilence, as duly registered in that institution. Besides illustrations of the nature of pestilence, from 1817 to 1828, with a view to pathological and therapeutical information, this table, embracing the twelve years from 1803, when the Cork-street hospital was opened, to 1816, is intended for preparatory explanation of the succeeding observations on the management and abuses of that institution, which I made, in reply to the category sent me by the commissioners of the poor law inquiry. The comparative success of the Cork-street hospital in checking the growth of fever, which is exhibited in this table, whilst fevers were demonstratively contagious, will, I hope, assist at once to explain the signal failure afterwards of multiplied institutions of the same kind, to have mainly arisen from misdirection, and likewise to indicate those adaptations of the means both of prevention and cure, which other causes, and consequent changes in the nature of prevailing diseases, have made necessary. Moreover the infraction in the bye-laws, originally framed by the managing committee, not only to insure the right conduct of themselves and successors, when they undertook so responsible a trust, but the protection of all who co-operated with them, will be thus rendered more apparent; and likewise, how that infraction has been alike injurious to the public, and unjust to individuals, who, anxious to discharge the duties of their stations, looked to the bye-laws as their safe guides.*

Years.	Admitted.	Died.	Average
1804	415	29	1 in 14†
1805	1024	67	1 in 15‡
1806	1264	103	1 in 12§
1807	1100	92	1 in 11

* See Rules and Bye-laws in the annual reports of the fever hospital and house of recovery; clauses, Managing Committee, Physicians.

† Poverty in the Liberty from decline of trade, aided by contagion and malaria. See Medical report for 1804.

‡ Farther decline of trade, and the emigration of the male population of the Liberty.

§ Contagious fever extending over the south side of the Liffey within the Circular-road.

|| Scarlatina prevailed and rendered the epidemic fatal; but checked by fever hospital in the district it embraced.

Years.	Admitted.	Died.	Average.
1808	1071	94	1 in 11*
1809	1051	83	1 in 12†
1810	1774	154	1 in 11‡
1811	1472	115	1 in 11§
1812	2265	166	1 in 13
1813	2627	164	1 in 16¶
1814	2329	143	1 in 11**
1815	3789	187	1 in 20††
1816	2763	173	1 in 15‡‡
Total	22944	1576	1 in 14§§

This synoptical statement of the occasional increase and decline of contagious fever, and of the obvious causes of its desultory progress, under the preventive and curative means employed in the Cork-street fever hospital during the first twelve years of that institution, affords, I hope, some preparation, perhaps even apology, for the observations I have now to make on the management of that institution. They are made with a view to the more successful adaptation of the means of prevention and cure; an adaptation which I believe to have become necessary owing to the extraordinary increase and malignity of epidemic and pestilential diseases since 1816. To account also in some degree for the order of the subsequent remarks, I have to state, as already intimated, that it is the same as that of my replies to the commissioners of poor laws' inquiry, and of which they will chiefly consist.

There are many other fever institutions within its district (i. e.) in Dublin, beside the

* Efficacy of fever hospital manifest, and therefore extended over the entire city.

† Diminution of continued fever, but remarkable increase of ague.

‡ Ardent spirits cheap and of bad quality; fever more contagious and malignant.

§ Improved modes of prevention and cure, the cause of diminution of numbers affected, and of mortality.

|| The type of 1810 re-appears with the same causes; extension of fever hospital thus demanded.

¶ Fever of 1810 still continued to increase, but the mode of cure then founded on the distinctive characters of the blood, rendered the mortality less.

** Discriminate treatment of distinct forms of continued fever, preventive and curative, described. See Treatise on fever, London, 1814.

†† The same causes of increase of fever and less mortality continued.

‡‡ Though the harbinger of famine and pestilence this year, was remarkably healthy over Europe generally.

§§ Thus far the results of the operation of the Cork-street fever hospital are favourable even compared with similar institutions in Great Britain during the same period.

Cork-street hospital, which have been established since 1803, when that, the primitive one, was founded. They were erected to check the rise and growth of epidemic and pestilential diseases; but were constructed and multiplied in compliance with the opinion, (I think a fallacy) that the increase of disease depends mainly or wholly upon contagion. On this principle they appear to me to have been unnecessarily enlarged to provide for the emergencies of the occasionally alarming influxes on the more ordinary course of disease. In ordinary times, it is however, certain, that legitimate cases could not be found to occupy a sixth of the beds, and they must have remained vacant had not these hospitals been made asylums for the houseless and famishing poor, and for those labouring under disease often the consequence of misery alone, such as low fevers, dropsy, melancholy, and even mania. In the last three years, I know that many beds in the Cork-street hospital, not occupied in the manner just adverted to, have been kept empty, wholly in compliance with the opinion of the ultra-contagionists.

An experience of nearly forty years, as student and physician, in dispensary and fever hospital practice, enables me, without hesitation, to give it as my opinion, that the formation of medical districts, to each of which a fever hospital, dispensary, cowpock institution, with surgical beds to the number of six in each, would be a very great improvement; and I have no doubt, that under such an arrangement, one fever hospital on each side of the Liffey, with a dispensary and soup shop in each parish, would be found sufficient for the sick poor of Dublin during the fiercest outbreaks of epidemic diseases; and that after these extraordinary swells subside, the bedsteads in such hospital, whether surgical or medical, might be most advantageously occupied by those labouring under parturition, accidents, or chronic disease; or, if disengaged, accommodation should still remain, by the houseless and unemployed tradesman, predisposed by want to mental and bodily disease. As physician to the chief dispensaries of Dublin at the close of the last, and beginning of this century; to the Cork-street hospital from its foundation until July last, and as one of the officers of health in St. Peter's parish during the prevalence of the epidemic of 1817, 18, and 19, I have collected facts on this subject, from which alone these statements have been made.

In times of great emergency, as in 1818, 19, and 26, nearly 280 patients have been accommodated in the Cork-street fever hospital by the aid of tents, pitched on the enclosed grounds, but the wards themselves can accommodate from 240 to 280 patients. The apartments of the registrar, two apothecaries, two housekeepers, and head-nurse,

together with those of the nurses, take up perhaps a tenth of the whole. Great pains have been taken for the ventilation of the wards; there are both fixed and moveable baths. The out-buildings consist of a laundry, with a steam-engine and washing machine; of lodges for the porters, one at each gate; stables, and coach-houses. The latter are occupied by the servants engaged in the laundry, the porters, &c. The grounds are partly meadowing, and partly tilled for the use of the resident officers. All the above houses belong to the institution.

(To be continued.)

—o—

MANUAL OF OPERATIVE MEDICINE.

BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

CHAP. III.—Of Operations which are performed on the Teeth, or Dentists' Art.

WE shall treat, in succession, of operations the objects of which are to clean, file, cauterize, stop, extract, and luxate the teeth, or, lastly, to alter their situation. With respect to the proceedings had recourse to in fabricating and fixing artificial teeth, they belong to a particular business, and will not be treated of by us.

1. *Of Cleaning Teeth.*—The instruments employed consist of small rasps, variously shaped, square punches, &c. We may confine ourselves to the following:—1, A rasp, shaped like a carp's tongue, and which cuts on both sides; 2, a rasp in the form of a chisel; 3, a rasp hollowed out, or spoon-shaped; 4, a square punch cut aslant to a single point; 5, a square slanting rasp, bent at right angles; and, in addition, a small mirror, five inches long and one broad.

In the operation the patient is seated, the head resting against the back of the arm chair; a cloth is placed over the shoulders, for the purpose of wiping the instruments, and warm water is got ready to rinse the mouth with. The operator places himself before the patient, making use of the fingers of the left hand to separate the lips or keep the head fixed, or turn it gently, but never suffering his hand to rest on the person. The lower jaw is first operated upon. The tongue-shaped rasp is held in the right hand like a penknife, the upper lip raised, and each tooth, as it comes to be cleaned, supported by the right index finger; the tartar is to be removed from the front and right sides of the incisor teeth. For the lateral surfaces the rasp is held as a writing pen, and the *point d'appui* is made on the neighbouring teeth with the ring and little fingers. The chisel-shaped rasp is employed to clean the outer sides of the molar teeth, being

worked backwards or forwards, or upwards or downwards. Their interior is cleaned with the bent rasp; for the right side the *point d'appui* is made on the thumb of the left hand; for the left side and fore teeth the *appui* is made by resting the palm of the hand on the chin, previously covered with a corner of the cloth.

In operating on the incisors of the lower jaw, the dentist places himself behind the patient, and makes use of the tongue-shaped rasp in the manner before described. After having removed all he can he returns to the front, separates the lower lip with the left thumb covered with a cloth, supports the teeth, if they are not firm, with the left index-finger, and uses the rasp from below upwards.

The molars are cleaned like those of the upper jaw; the instruments are the same, also, for the inner surface of all the teeth.

The punch has two uses. It serves to remove all the tartar which exists in the intervals of the teeth; and when the layer of tartar is very thick, by driving the point of the instrument down to the tooth, and making a rotatory movement, we are enabled to break it off in scales. For this purpose the chisel-shaped rasp is also very useful. The spoon-shaped rasp serves to detach the tartar from the neck of the tooth by following the turns of the gum, without intruding upon them.

The general rules of action should be as follows:—1. Teeth that are loose should be carefully supported, and the tartar cut from each tooth in separate fragments, without succussion. 2. The instruments ought always to operate from the neck of the tooth towards its border, in order to avoid wounding the gum. 3. It must not be expected that we can render the canine teeth as white as the incisors, the former being always somewhat yellower. 4. We cannot expect to render every one's teeth equally white and brilliant. We must be contented to remove all sordes and tartar, without trenching on the layers of the enamel. 5. When we find the dental tissue softened or deprived of enamel, it is requisite to proceed with caution; indeed, it is often prudent to leave a little tartar. 6. The gums must never be divided or separated from the teeth.

The chief part of the operation being finished, the end of a pen is to be introduced between the teeth; they are to be rubbed with a little ball of cotton, or a root wetted and charged with some dentifrice powder; and we should examine, with the mirror, if anything has been left behind.

When the sordes are difficult of removal with the rasp, whether on account of their being near the necks, or because they occupy the fissures of the teeth, a pointed wooden stick, steeped in a solution of muriatic acid in five parts of water, may be used. The sordes, when rubbed with this,

are soon decomposed, and immediately all the parts should be copiously rinsed with warm water, to prevent the acid from acting any further.

2. *Of Filing Teeth.*—For this purpose the fine files used by clock-makers are employed: some of them cutting on one side, some on both. Fine saws are also of use in some cases. The files should be well-formed, and, with unbroken teeth, in order to avoid succussion, it is requisite to have small portions of file, which may be placed in a port-file, in order to operate on teeth deep in the mouth; otherwise the file which is fixed in a handle is firmer, and less liable to break. During the operation the patient is seated, the operator standing. Warm water is requisite to steep the files in, for cold water produces a disagreeable sensation. The operator is placed sometimes before, sometimes behind, according to convenience. He should take care to separate the lips with the fingers of the left hand, which will form a point of support to the right hand, and enable the file to act more solidly, and without violent motions; if it become fixed we should stop immediately, and endeavour to disengage it: the slightest force runs the risk of breaking the tooth or the instrument. The following rules are to be attended to, according as we use the file to destroy caries, asperities, or to shorten a tooth which is too long. 1. If the caries is shallow, we may remove it completely; if deep, it is enough to insulate the decayed tooth from the neighbouring ones. 2. When the teeth are filed on the sides a portion must be left untouched near the neck, in order to prevent the approximation of the neighbouring teeth. 3. If the operation be performed on the incisors, the file must be held obliquely, in order to save as much as as possible of their front surface. 4. If the teeth to be separated are both carious, a file must be employed which cuts on both sides; if one be sound, a simple one which cuts on one side will answer. 5. If it be required to remove asperities, or to shorten a tooth which is too long, a small saw will act with more rapidity than a file. In these cases, if it be impossible to direct the file or saw transversely, it may be directed obliquely in different directions, and thus that may be removed by several cuts which it would have been impossible to separate at once. 6. When the piece to be removed is very large, it is better to divide it by forming angles and projections than by filing uniformly: the operation is quicker. 7. When a tooth is very long it is prudent to file no more than half a line at once, and not to repeat the operation until some months have elapsed. By this precaution the tooth becomes gradually accustomed to external impressions, and is less subject to caries. 8. Sometimes a prolonged operation causes general irritation, vertigo, or nervous excitement—the operation must be

postponed for a few days. 9. Before filing very hollow teeth, especially the molars, when nothing but enamel is left, it is requisite to cut them off with strong scissors or good pincers.

3. *Of Breaking down the Nervous Pulp of the Teeth.*—We make use of a curved steel style, well pointed, with which the walls of the cavity are to be cleansed and scraped. Then we endeavour to introduce it into the canals of the roots of the teeth, and turn it about in different directions, in order to break up the nerve completely. If the style prove too large for the purpose, a fine needle, or even a hog's bristle may be introduced, and turned about until the nerve no longer suffers pain. This breaking up is very painful, and rarely succeeds: cauterization is preferable.

4. *Cauterizing the Nerves of the Teeth.*—A metallic stylet with a very sharp point is heated to redness in a candle, and introduced into the canal; or a piece of fine needle, heated in the same way, may be fixed in a portcrayon and used in the same manner. In order to succeed with this operation, the patient must be firm, and the introduction of the cautery rapid. Laforque, an Italian dentist, proposes to direct upon the dental pulp a current of inflamed hydrogen. He encloses the hydrogen in a bladder, and fixes to the neck of the bladder a pipe of Anel's syringe. Some push little balls of cotton impregnated with caustic into the hollows of the teeth; others the solid caustics covered with cotton; others drop from a writing pen a drop of concentrated acid into the tooth; but in none of these cases are we secure as to the quantity we employ. M. Turck, of Naney, makes use of a glass tube with very thin walls, about 8 lines in diameter, swelled into a globe at one extremity, and terminating at the other in a tube of capillary fineness, which is properly curved. By taking the globe in the palm of the hand the air is rarified by the warmth and partly expelled. If the capillary extremity be plunged into any liquid, by suffering the instrument to cool, part of that is absorbed. Nothing is easier than to graduate the quantity. The instrument charged in this manner is carried to the point we wish to cauterize, and by warming the globe a second time with the hand the liquid is expelled.

Cauterization of every kind is painful and dangerous, in consequence of its causing inflammation. It ought not, therefore, to be practised on those who have teeth very sensible to shocks or to heat and cold. The proceeding of M. Turck is the best for applying caustics, but it is applicable only to the under jaw; for the upper jaw the actual cautery is preferable.

5. *Of Stopping Teeth.*—Teeth are plugged in two ways—1, by metallic leaves; 2, by means of a fusible metal poured into them in grains. For the first method the requi-

site instruments are a curved stylet to clean the cavity of the tooth, one curved *fouloir*, with a sharp point, another blunt-pointed, a burnisher, carded cotton, and leaves of lead, silver, or gold. These leaves should be somewhat thicker than common gilding-leaf, and it should be refined, or otherwise Laforque says it falls into dust when melted.

We commence to clean the tooth by scraping its cavity, and removing all moisture from this by balls of cotton. If the cavity appears too smooth, a few inequalities may be formed, in order that the metal may be better retained. Desiring the patient to keep the mouth open lest any silver should again get into the hollow of the tooth, we form with the metallic leaf a ball three or four times as large as the cavity we have to fill. With the pointed *fouloir* the metal is to be pushed and pricked repeatedly in all directions, so as to force it into the deepest and narrowest anfractuositities of the cavity. The second *fouloir* is used to make more forcible pressure. When the hollow is perfectly filled, if any superfluous quantity of metal stands out of it, this may be cut with the rasp, or polished with the burnisher. The latter should be heated when we employ sheet lead. It is better to make the ball of metal too large than too small, as any leaf we may add never unites well with that first introduced. Teeth ought to be plugged when painful, and if the operation produces pain, the metal should be removed until that has subsided.

M. Delabarre modifies this operation by placing in the cavity over the nerve a small concave gold plate, and plugs over this. The method is designed to obviate pressure on the nerve, and pain, but is only practicable when the teeth are very much hollowed.

In stopping teeth by means of fusible metals, we may use nearly the same instruments, only as it is necessary to heat them to a sufficient degree, they ought to have at a distance from their extremity an enlargement capable of preserving the requisite caloric. The tooth cleansed and dried, a grain of metal is to be placed in its cavity with a pair of dissecting forceps. Upon the metal is applied the end of a cauterizer heated in the candle; the metal melts and fills the cavity. Superfluous metal may be removed with the same instrument, the heated burnisher, or, as in the other method, by the rasp. The plan succeeds very well in the lower jaw, but can seldom be applied to the upper. We may combine Delabarre's method with it.

6. *Of Extracting Teeth.*—Amongst the multitude of instruments invented for this operation, some are absolutely bad, and ought to be rejected, as *le pied de biche* (deer's hoof) and the *pelican*; others superfluous, or nearly useless, as the greater part of the modifications of the key or the forceps. We

shall describe only five, which may be substituted with advantage for all others.

1. *The Gum Lancet.*—An instrument ending in a small lamina, concave and cutting bluntly, and used to detach from the teeth the gums, when too firmly adherent.

2. *Garengot's Key modified.*—It is composed of a transverse handle, solidly fixed to the shaft; of a shaft twice bent on itself, in order that it may pass clear of the fore teeth, when applied to those deep in the mouth; of a "panneton" (a key-bit, iron pad, or quadrilateral plate) placed on the side and near the extremity of the shaft; and of claws, fixed by a moveable screw to the flattened head of the shaft. The claws ought to present such a curve that their extremity only can touch the tooth to be extracted; for when the middle of the claw rests on the crown of the tooth, we run the risk of breaking it. Hence the curved form given by Delabarre to his crotchets, appears preferable. It is convenient to have two or three of various sizes, one of middle size, terminating in a cutting point, and one shaped like a Z, for the last molares.

3. *The Tirtoir*—formed upon the principle of the key, with these differences, that the handle is continuous with the shaft, that the pad and claw are placed exactly at the end of the shaft.

4. *The Forceps.*—This is an instrument straight or curved, and various as to thickness. One only, with moderate sized claws, appears to us sufficient, because this instrument should only be used to take out teeth already loose. It is best to select a curved one, and one with its claws separated laterally, rather than from above downwards.

5. *The Lever* is composed of a shaft slightly bent, terminated by a sort of quadrangular pyramid, with two expanded surfaces. Instead of a termination in a point, we prefer leaving a nearly cutting edge, so that the instrument should nearly resemble a turn-screw. The handle may be transverse or continuous with the edge.

Operative Proceedings.—The patient is to be seated in a good light, in a chair against the back of which the head is to be supported, or otherwise an assistant, a wall, or a piece of furniture, will answer the same purpose. The dentist places himself in front or on one side, for the teeth of the lower jaw: for the teeth of the upper jaw, it is better he should be behind, when the patient should be seated on a low stool, or on the ground, with the head resting against the operator. But the operation may be performed in bed.

We should commence by examining if the diseased tooth be firm or loose. If loose, and the gum appears very adherent, it will be necessary to lance it first. In ordinary cases, and when these adhesions do not seem strong, the lancing, which prolongs the operation, and after all does not always prevent the laceration of the gum, may be omitted.

1. In *operating with the key*, after having armed it with a proper claw, and marked the points upon which it should act, the instrument is introduced with the right hand, the forefinger on the shaft, the middle finger holding the claw raised, or vice versa: then, by the aid of the left forefinger, the end of the claw is to be placed on the diseased tooth, below the crown, as near as possible to the alveolar process, care being taken that the middle of the claw does not touch the tooth. The point *d'appui* is made with the pad upon the gum of the other side. The claw must fall perpendicularly upon the tooth. The least obliquity endangers the breaking the crown of the tooth. The instrument being fixed, the handle is grasped with the right hand, the shaft passing between the middle and index fingers; with the left hand the side of the jaw upon which the operation is performed is to be firmly supported, and now a twisting motion is to be made, tending to turn the tooth over to the side of the pad. This movement ought to be gradual, until the tooth is forced to yield, when an upward movement should be communicated, which will throw it out of the socket, or even the mouth; though for this a considerable degree of practice is requisite.

In the operation these occurrences happen:—the adhesions between the tooth and the periosteum of the alveoli are destroyed, the dental nervous cord is torn, a small portion of the alveolar process, on the side to which the tooth was drawn, is broken: expertness consists in breaking as little of this as possible. Hence the use of the movement upwards. Sometimes, to avoid breaking the alveoli, it is attempted to make a partial dislocation of the tooth, leaving it to be afterwards extracted with the forceps.

2. *With the Tiroir*.—The instrument is to be seized firmly in the hand, the thumb and index as near as possible to its acting extremity, fixing at once the shaft, the pad, and the claw. The pad and the claw are applied like those of the key. The turning the tooth outwards is commenced by a gentle movement, and when that is found to yield, the pad is raised slightly on the gum; then the turning movement is recommended, so as to extract the tooth by these alternate motions. It is the best instrument, and the best method: unfortunately it can be employed only on the anterior teeth.

3. *With the Forceps*.—The tooth forcibly seized between the branches until the teeth descend to the alveoli, a slight rotatory motion is to be made, and then traction upwards. Many surgeons employ the forceps to all the fore teeth, but they run the risk of breaking them.

4. *With the Lever*.—The extremity of this instrument is to be glided between two teeth, either between a sound tooth, and one partially carious, or between a sound tooth and a stump, in such a way that the sound

one may serve as a point *d'appui*; or between a stump and its alveolus, taking then the *appui* from the index finger of the right hand or the left thumb. The instrument being fixed, it may be brought to act in two ways;—if it is between two teeth, a twisting motion may be made, which tends to remove them and overturn the diseased tooth; if a stump, it is to be acted upon as by a lever of the first kind. It is essential to fix the finger on the tooth of which the fulcrum of the lever is made, to take care that the instrument does not escape, and to repeat the attempt many times if it should not succeed at first.

Whatever be the instrument employed, when once the tooth is loosened from its attachments, its extraction is to be completed with the forceps; or if the gum adheres, the gum-lancet must be used. Then the gums are to be pressed together with the thumb and forefinger, and the mouth rinsed with vinegar and water, to stop the flow of blood.

The crown of the tooth must be somewhat solid when we use the three first instruments. When it has a large cavity, some advise that it should be previously plugged. It is much better, however, to have recourse to the lever. When a tooth has been broken to its roots, they are difficult of immediate extraction: it is better to wait some months, when their adhesions will be found weaker.

With regard to the mode of proceeding with respect to particular teeth.—1. The incisors, canine, and smaller molars: the forceps when they are loose, the tiroir when they are firm, are to be used, care being specially taken that the claws of either instrument are not so large as to intrude on the neighbouring teeth.

2. *The larger molars*.—In the upper jaw the direction of their roots, and the difficulty of otherwise finding a point of resistance, renders it a rule to draw them outwards. The operator places himself behind the patient, or on one side, in such a manner as to be always able to use the right hand. The point of resistance should never be taken on the inside, unless the opposite method should be impracticable: sometimes the pterygoid process is so near the second molar tooth, that it is very difficult, especially in full people, to make the point of resistance on the outside with the ordinary claws. Then a claw in the form of Z is to be made use of, and the pad rested against the first molar tooth; or it may be drawn inwards. For the lower jaw, the surgeon places himself in front. It is usual to extract the teeth outwards, but often opposite to the second tooth the oblique line of the bone is very protuberant, and gives so much thickness to the outer border of the alveolus that the pad is apt to slip, and the tooth to be broken. It is better in this case to extract inwards, taking the precaution to observe that the teeth are not so closely connected but that the outer surface (always larger than the

internal) may be brought inwards without loosening the neighbouring teeth. The first molar tooth may be extracted in the same way.

3. *The Wise Teeth.*—In the upper jaw the coronoid process is generally an inseparable obstacle to the use of the key on the outside; nor can a convenient point *d'appui* be found within. The Z shaped claw is therefore to be used, which allows the resistance to be made opposite the second molar tooth; or the lever may be passed between the two teeth, and the hinder one turned out in a direction backwards and a little inwards. The wise teeth of the lower jaw may be drawn inwards easily.

4. *Extraction of the Roots of the Teeth.*—The roots of the twenty anterior teeth should be extracted with the *tirtoir*; the others with the key and sharp claw, whenever enough of the neck remains to afford a little purchase. If they are loose, they will yield to the forceps: those which are not too strong nor too deeply imbedded in the alveoli, may be extracted with the lever.

5. *Of Teeth placed external or internal to the Alveolar Border.*—Those which are external, may be removed in the ordinary way. Those in the interior of the mouth, must be first loosened with the lever, and then extracted with the forceps.

6. *Extraction of the Milk Teeth* is generally more injurious than useful, and may usually be left to nature. If, however, it be resolved upon, it may be effected with the forceps, due regard being paid to the softness of the alveoli, and care must be taken to extract the whole of the root of the tooth.

Of Accidents.—Fracture of the teeth, of the alveoli, and bruising of the gums, are accidents which we cannot always help, and which admit of no remedies, when they occur. When the gum is torn up with a portion of the alveolar process, the tooth must be seized with the forceps, and extracted as quickly as possible. There is no danger. If a sound tooth be loosened, it will generally become firm again; should it be extracted, it is best to restore it instantly to its place. When *hæmorrhage* occurs, it may usually be stopped by an acidulous gargle, or the socket may be filled with wax, a little pad of charpie, or agaric, according to the obstinacy of the case.

7. *Of Luxating Teeth.*—The proceeding is the same as for extraction, only that the tooth is merely half drawn, and not removed entirely from the socket. It is replaced by pressure on the crown, and tied to the neighbouring teeth; or it may be covered with a little pad, which the patient may compress by keeping his jaws closed, and abstaining from mastication for three or four days. This operation is only practised on the twenty

front teeth, and in order to its success, the patient must be young, the gums sound, and the tooth but little decayed. As it is done for the purpose of entirely removing pain, it is requisite that the luxation should be sufficient to break the nervous thread completely which goes to the tooth.

8. *Transplantation of the Teeth.*—This consists in substituting for a tooth just extracted a tooth drawn from another person. Independently of the barbarity of the operation, the difference in the forms of the roots might be prejudicial to success.

9. *Of approximating Teeth.*—When the removal of a tooth leaves an ugly hiatus, particularly in the front of the mouth, the separated teeth should be drawn together with a moderately thick piece of silk, well waxed. It should be passed round their necks, and tied firmly. This should be repeated every third day, until the void is divided between these teeth and the neighbouring ones, which will occupy about a month. They should be held in this situation by a common thread, until the alveoli have become consolidated, which will be in about another month. The approximation of the teeth cannot be attempted with probable success except between the ages of ten and thirty-six. After the latter period, we merely loosen the teeth. Laforque calls this a sublime operation.

10. *Of restoring Teeth to their proper Situation.*—This operation has no probability of success after the age of thirty years.

It is hardly worth while to endeavour to replace a tooth in the row when there is no room for it; it is better to remove it as a useless deformity. Sometimes, however, there are cases in which a tooth which is in the row may be removed to make way for one that is not. Thus, we sacrifice the small molar to preserve the canine. And if there is not exactly room for it, but there is some interval between the tooth, we should apply the ligature in order to make a place. The operation is effected by means of a plate of gold or ivory, formed according to the situation, and pierced with holes for the passage of ligatures. If the tooth projects towards the inside, the plate is to be applied on the outside of the dental arch, and the neck of the misplaced tooth is to be surrounded by a strong silk cord, the two ends of which traverse the holes of the plate, and serve to draw the tooth towards it. Sometimes it is requisite to fix the plate to the neighbouring teeth by ligatures. When the tooth is misplaced exteriorly, the plate is put on the inside of the mouth.—It has been advised, to replace some teeth placed obliquely, to turn them round with the forceps, and retain them by means of the plate and ligatures. Laforque rejects this operation.

Observations on the Classifications, Etiology, Pathology, and Treatment of Diseases of the Skin, according to the most celebrated Authors of Ancient and Modern Times.

(Continued from page 528.)

On reviewing the whole of the classifications already described, it appears to me that M. Rayer's is the best, as it is founded on the pathological conditions of the tissues which enter into the composition of the tegumentary system. He should, however, in my opinion, have followed the example of his celebrated countryman, Baron Alibert, and prefixed a general, if not a minute account of the anatomy, physiology, and pathology of the skin, to his special descriptions of its diseases. The order of studying the structure, functions, derangements of the different parts which form the tegumentary system before their diseases, would be in strict accordance with the usages of the modern schools, and simplify the subject in a great degree to students. M. Rayer has followed Cullen's nosological arrangement, by dividing cutaneous diseases into, 1, inflammations; 2, hæmorrhages; 3, neuroses; 4, local alteration: and to these he added diseases of the nails and hair, as appendages to the skin. This arrangement is simple and physiological, and much more intelligible than the natural system of M. Alibert, and, I think, preferable. I cannot comprehend the possibility of classifying cutaneous diseases as naturalists have done plants, nor does the renowned author assign any reason why his first group should not be last, and *vice versa*. On perusing each of his groups, a reader unacquainted with the nature of cutaneous diseases could not possibly understand whether certain species were or were not inflammations, hæmorrhages, neuroses, or local complaints. This objection applies with equal force and justice to the classifications of Willan, Bateman, Plumbe, &c., to all quoted except those of M. Biett, M. Rayer, and Dr. Green. I feel convinced that students will sooner comprehend the pathology and scientific treatment of cutaneous diseases, by treating them in the manner of all other maladies, than by following the natural system already mentioned. I am convinced that it would be best to describe them in this manner; and endeavour to introduce a classical terminology wherever this is defective. The classification which I venture to propose is based on those of Willan, Bateman, Biett, Rayer, and Green, and is as follows:—

DEFINITIONS:—DERMATITES. INFLAMMATIONS OF THE SKIN.

1. *Exanthemata. Rashes*.—Circumscribed or diffused redness, red patches, with or without interspersed papulæ (pimples) or vesiculæ (small blisters), between which the skin is of a natural colour; terminating by resolution, delectescence (sudden disappear-

ance), desquamation or exfoliation of the cuticle.

This order comprises six genera—erythema, erysipelas, rubeola, scarlatina, urticaria, and roseola.

2. *Bullæ. Bles*.—Small aqueous tumours caused by an effusion of serosity between the epidermis and subjacent rete mucosum, succeeded by a crust, or sometimes by superficial ulceration.

The genera of this order are, vesicatoriæ, ampullæ, pemphigus, rupia, and zona.

3. *Vesiculæ. Vesicles*.—Small serous transparent elevations of the epidermis, or cuticle, becoming opaque or purulent, differing from bullæ, by their smaller dimensions. The effused serosity is deposited between the epidermis and subjacent reticulated body (rete mucosum). These small blisters may be absorbed or effused, if ruptured, on the surface of the skin; and they are sometimes succeeded by a small, thin, lamellated crust or exfoliation, or by superficial excoriations.

The genera of this order are the sudamina or miliary eruptions, herpes, psora or itch, and eczema*.

4. *Pustulæ. Pustules*.—Elevations of the cuticle, formed by the effusion of pus or matter, or a fluid not serous, between the cuticle and inflamed reticulated body (Rayer), or on the surface, or into the substance of the skin (Green). Pustules dry more slowly than vesicles, form hard, thick, crusts or scabs, which may be horny, friable or pulverulent, and frequently cover indurations, excoriations, or deep ulcerations. The varieties of pustules are:—

1. *Phlyzaci*um, or a pustule of considerable size, surrounded by a hard circular base of a bright red colour, and succeeded by a thick, dark scab, or incrustation.

2. *Psudracium*, or a small pustule, slightly elevated, surrounded by a pink efflorescence, its base often irregular, or but faintly marked, sometimes confluent and terminating in a thick laminated circular incrustation.

3. *Achor*, or a small acuminate pustule, filled with straw-coloured gelatinous fluid, surrounded by an irregular efflorescence, but marked between it and its base, by a faint interspace, usually confluent, terminating in a thin light brown irregular crust.

4. *Favus*, or an irregular pustule of a large size, scarcely elevated, containing a more viscid straw-coloured fluid, surrounded by a rose-coloured base, terminating in a yellow, semi-transparent, or cellular crust, and sometimes by superficial ulceration.

The genera of this order are variola, variella, vaccina, vaccinella, ecthyma, cuperosa,

* Willan includes in this order, variola (small pox), vaccina (cow pox), varicella (chicken pox); but Biett, Rayer, and Green much more properly place them among the pustulæ.

mentagra, impetigo or running tetter, tinea, porrigo, and acne or stone pox.

5. *Papulæ. Pimples.*—These are small, firm elevations of the cuticle, caused by an increased action of the papillæ, containing no fluid in their centre, with a base more or less inflamed, seldom suppurating, terminating usually in scurf, and attended with intense itching. They generally terminate by resolution or desquamation of the cuticle, and very rarely by ulcerations.

The genera of this order are, strophulus, or the red gum, white gum, and tooth rashes so called by nurses, lichen, and prurigo.

6. *Tubercula. Tubercles.*—These are small, hard, solid circumscribed tumours, larger than papulæ, with or without an inflamed base, permanent or persistent, imbedded in the skin, terminating in resolution, partial suppuration, or destructive ulceration.

The genera of this order are, lupus, cancer, elephantiasis of the Greeks, molluscum, and fambræsia.

7. *Furunculi. Boils.*—Solid tumours, larger than tubercles, caused by inflammation of the cellular processes or elongations, which enter into the areolæ of the derm or true skin.

The genera of this order are, furuncle or boil, anthrax or carbuncle, and hordeolum or sty.

8. *Squamæ. Scales.*—These are indurated, opaque, whitish or yellowish lamina or lamellæ of the cutis epidermis, caused by the inflamed reticular body, or are continually being detached from, and renewed on, the surface of the skin.

The genera are, lepra or leprosy, psoriasis or scaly tetter, pityriasis or dandriff, and, according to Willan, ichthyosis or fish skin disease. Biett, Rayer, Green, and other late writers, maintain that this disease is not caused by inflammation of the rete mucosum, derm, or true skin, but depends on an usual thickness of the cuticle. They object to its being placed among the inflammatory diseases of the skin. Nevertheless, it bears the closest resemblance to the other squamous or scaly diseases*.

* Two cases of this disease have lately fallen under my observation. The subjects were brother and sister, but they were not born consecutively. Both resembled the father in moral and physical constitution more than the mother. The girl was most affected on the knees, and anterior part of the legs. The boy was diseased on the trunk and superior extremities. The children born between them were free from disease. On inquiry, I learned that the father suffered from dandriff, and that his parent had laboured under ichthyosis. Both the boy and girl were cured by aperients, tonics, and the external application of hydriodate of potass in the proportion of one drachm to each ounce of prepared lard. My students observed these cases at the dispensary.

9. *Fissuræ. Fissures.*—These are lineal cracks of small depth, and seldom extend to the whole thickness of the skin.

10. *Maculæ. Spots.*—Discoloration of the whole or a part of the surface of the skin, generally congenital and permanent. They may or may not be accompanied by general disorder of the system. This is the eighth order of Willan, Bateman, Biett, Green, &c.: and its genera are—ephelis, sun spots or freckles; nævus or mother's marks, spilus or mole; and, according to Green, the albino state; vitiligo, or a partial degree of this state, cloasma or liver spot, and lentigo.

M. Rayer excludes this order, and describes the diseases referred to under the title, "Alterations in the Colour of the Skin." He describes these as follows:—

11. *Gangrene. Gangrehes.*—Malignant pustule, bubo of the plague.

Decoloration. Leucopathia—1, partial, 2, general chlorosis.

Accidental Colorations.—Ephelis, entigo, chloasma, meladermis, icterus, nævus maculosus; bronze tint, caused by the internal use of nitrate of silver, (lunar caustic).

12. *Multiformes. Multiform.*—Burns, frost-bite, syphilitic eruptions.

Ulcers are excluded from this classification, because they never constitute a primary alteration. "They always succeed subcutaneous abscess, viscidulous, pustulous, or tuberculous inflammations, &c. and the study of them cannot be separated from that of the different inflammations which produce them.

"All inflammations of the skin affect, more or less, the reticular body (rete mucosum) of this membrane; some affect the dermis itself, the sebaceous follicles, the bulbs of the hair, the interareolary cellular tissue of the dermis, and even the subcutaneous cellular tissue." (Rayer.) The various other tissues lately discovered by Breschet and Rousel, (1835) are of course equally liable to inflammation. (This description not received).

The functions of the different tissues may be deranged by inflammation; the transpiration or perspiration may be diminished, suppressed, or increased, the secretions of the sebaceous follicles and cuticle, the sense of touch, and there is no doubt but the hair and nails may suffer morbid alterations.

Cutaneous inflammations may be general or local; general, as when they affect the whole surface of the skin, as, scarlatina, rubeola, variola, &c.; local, or partial as tinea, mentagra, &c. acute or chronic and febrile, or non-febrile, and may cause congestion, effusion, inflammation, or suppuration in the head, chest, abdomen, or joints, or their sudden repression may induce apoplexy, paralysis, asthma, &c. &c.

CLASS II.—*Dermatorrhagia, Cutaneous, Hæmorrhages, and Subcutaneous Congestions.*

When blood is accumulated in the substance of the skin it is termed congestion.

When blood is effused on the surface, or

into the substance of the skin; it is termed dermatic hemorrhage.

The cause of either disease, is want of energy in the venous circulation. Thus, if a ligature is placed round a limb, the parts below it become red or livid, and swollen; and another familiar example is afforded by the tumefaction and redness of the soft parts under a cupping-glass. This state is also observed on the face and extremities in diseases of the heart, asphyxia of new-born infants, in pneumonia, &c. and on the face from vivid emotions. The causes may be temporary, intermittent or continued; but the diagnosis between congestions and exanthematous inflammations is very easily drawn.

Hæmorrhage from the skin, or dermatorrhagia is a rare disease, except when the epiderm is raised, congested, or ulcerated. A simple illustration is afforded by the application of a blister to a surface from which the cuticle has been already removed. In this instance, the blood will be effused on the surface of the skin in the same manner as on that of a wound. Cutaneous hemorrhage has sometimes occurred in the course of visceral inflammations, and in the last stage of inflammations which are about to terminate fatally. The disease is so rare, that little can be said of its cause or treatment. Some of the older writers have slightly alluded to bloody sweat as an idiopathic disease. Pournier cites two cases of it (*Art. Cases rares Dict. des Sciences Medicales.*) It is said to appear on new born infants, and that the blood may be seen issuing from the surface of the skin without any alteration in the appearance or tissue of this part. Bichat and others considered that the disease might be idiopathic. It often appears in confluent small pox, on extensive burns, eczema, pemphigus, &c. Rayer comprises, with reason, the following diseases under this head—ecchymoma (ecchymosis), sugillatio, petechia (febris petechialis), and purpura hæmorrhagica or hæmacelinose.

CLASS III.—*Dermatoneuroses—Neuroses of the Skin.*

The skin is the organ of palpation, or touch. "The skin," says Rayer, "is the organ of general and passive tactility, by which is recognized the presence of bodies, and their temperature—is the seat of a peculiar and active sensation (touch), at several points in which it is provided with numerous nerves and vessels. The function of the skin may be modified, or abolished, without its texture having undergone any appreciable alteration."

Nosographers describe neuroses of vision, audition, olfaction, and gustation, or in other words, of sight, hearing, smell, and taste, and why should there not be those of palpation or touch, or of the skin? Has not experience convinced every observant physician of the fact, that there may be excessive neuralgic

pain, or total insensibility in every part of the skin? Paralysis affords us a familiar illustration of partial or total insensibility of the skin. Every part of it may be affected with abnormal or disordered sensation, excessive pain, numbness, sense of cold, creeping, &c. &c.; and our foreign contemporaries designate these morbid conditions, the hallucinations of the sense of touch. In all the innumerable neuroses or nervous affections of the skin, there is no unnatural or diseased appearance of this tissue. This multifiform class of disorders are well known, for they are constantly observed; though their causes are as yet unintelligible. It is impossible to explain the causes of the numerous modifications or hallucinations of the sense of touch, or of the abnormal disorders of the skin. But their existence cannot be questioned or denied. In many visceral diseases, such as those of the liver, kidneys, uterus, &c. and in habitual constipation of the bowels, there may be great *exaltation of the sensibility of the skin* in some particular point: indeed, every part of the skin has at different times been in this condition, and unaccompanied by redness or any degree of inflammation, or of eruption.

In like manner, there may be *diminution or abolition of the sensibility of the skin* in any point of its surface. These disorders have been termed *anæsthesiæ* by the older nosologists; and may exist with, or without, paralysis of the subjacent muscles. The discoveries of Sir Charles Bell, of M. Magendie, and Sig. Bellinghieri, warrant the conclusion, that in cases without paralysis, the sensory, and not the motor filaments of the spinal nerves, in these cases, are affected. Numerous examples are also on record, of loss of sensibility of the arm or lower extremity, though the power of motion continued unaffected. Paralysis of the skin depends on affections of the nervous centres, which must be vigorously combatted to remove them.

CLASS IV.—*Dermatachromata—Achroa, Decolorations.*

Absence of colour of the skin, depending on the want of the pigmentary secretion, or usual colouring matter of the rete mucosum, skin and hair, leucopathia, leucæthiopia, albinism, general whiteness, and chlorosis. (Rayer.) This disease may be general or partial, congenital, or accidental.

When there is a partial colourless state of the skin, it is termed vitiligo.

CLASS V.—*Dermatodyschromata—Dischroa, Maladermia Discolorations.*

Discolorations of the skin are caused by different modifications of the pigmentary or colouring matter, as in epheles, sunburn, lentigo, freckle, chloasma, or pityriasis versicolor, of Willan, or maculæ hepaticæ, or dandriff of others. They are also produced by the introduction of extraneous matters into the tissue of the skin, as in jaundice,

artificial colorations, such as those induced by a long use of the nitrate of silver (lunar caustic); and lastly, the skin may be greatly discoloured, as in melanosis, and nævus, or mother's marks. Many of the last are more analogous to sanguineous tumours, such as the vascular and subcutaneous nævi, than to alterations of the colour of the skin.

CLASS VI.—*Dermatohydroa—Sudor—Diaphoresis—Perspiration.*

The morbid secretions of the skin are termed *ephidroses generales et locales, sudamina, miliaria, papule, sudorales et sudosæ and hydronos, hydronosus, hydropyretus, sudor Anglicus, or sweating sickness*. Haller well observed that there is disease of the perspiration: "*estque sudor morbi genus.*" There may be chronic sweat, partial or general, on the feet, hands, neck, shoulders, breast, and about the groins, pudenda, and anus. The sweat may acquire a sour, rancid, fœtid odour, and one somewhat similar to that of musk. It may be changed in colour, and cases of black, green, blue, &c. sweat have been cited.—*Sauvages' Nosol. Method. Art. Ephidroses, Ephem. Curios. Dec. 3, an. 7, 8, &c. Dec. 11, an. 4.*

CLASS VII.—*Dermatocryptoncoses.*

Morbid tumours caused by secretions of the cutaneous cryptæ or follicles, including acne, of a ceruminous or waxy layer, somewhat similar to the white unctuous coating on new-born infants, vermiform bodies (grubs) folliculous tumours, (A. Cooper and B. Travers), which have been denominated lipoma, meliceris, atheroma, and steatoma.

CLASS VIII.—*Adermata.*

Congenital absence and defects of conformation and texture of the skin—cutaneous and subcutaneous vascular vegetations and tumours, erectile tumours, moluscum, atheroma, steatoma wen, verrucæ, porri, or warts; mamellated excrescences, cornua, horny growths, clavi, gemursa, corns, cicatrix, scar, seam, healing of a wound or burn.

DISEASES OF THE APPENDAGES OF THE SKIN.

Onychosenology—Description of Diseases of the Nails.

GENERA I.—Onyxis, onychia, whitlow.

II.—Onychohæmorrhagia, onychensarcia, the nail growing into the flesh, sublingual ecchymosis.

III.—Onychophthoria; morbid alterations of the nails. Abonychia; absence of the nails.

IV.—Onychoptosis; fall of the nails.

V.—Polyonychia; supernumerary nails.

VI.—Onychophyma; tumefaction, or enlargement of the nails.

VII.—Onychogryptosis; curvature of the nails.

VIII.—Onychodyschroa; accidental coloration of the nails.

These terms are new, and perhaps will be objected to by the superficially informed;

but the erudite, whose opinions are valuable, will not repudiate them. There are many who object to the use of the Greek language, but they do not know, and cannot appreciate its brevity and expressiveness. The learned of all nations employ it constantly; and I see no reason why we should not imitate their example.

TRICHOMANOSOLOGY.

Description of Diseases of the Hair.

GENERA I.—Trichomatanoses; diseases of the hair.

II.—Trichomatitis; inflammation of the hair.—Plica polonica; also, matting of the hair.

III.—Canities; hoariness.

IV.—Trichomatadischroa; decoloration of the hair.

V.—Alopecia phalacrotes; baldness.

VI.—Atrichomata; absence of hair. Calvities senile; fall of the hair.

VII.—Polytrichomata; supernumerary hairs. Trichiasis; vicious direction of the hair.

Anomalous Diseases connected with the Hair and Skin.

Phtheriasis; morbus pedicularis.

Pediculi.

Pulex.

Acarus scabiei, sarcoptes; flesh worms; itch insects.

Œstrus, astromus.

Elephantiasis, lepra; Barbadoes leg; Cochin leg.

Some will censure this arrangement of diseases of the skin and its appendages; more, I hope and trust, will approve it; and all, I flatter myself, will admit, that if it do no good, it can inflict no evil; I submit it to the world, with all its imperfections on its head. I am disposed to imagine, that it is as perfect as other classifications of the diseases of the skin, but in this I may, and most probably am mistaken; nevertheless, I submit it to the profession in all countries.

R.

(To be continued.)

—o—

Foreign Medicine.

—
Morey.

We hasten to publish the following communication, addressed to us by M. Scipion Pinel:—

It was on the fifteenth of this month, writes this physician, that I was called to attend Morey, in concert with Messrs. Barras and Bonnet, medical attendants of the prison. After the reports which had been spread by the journals, I expected to find a man resolute, haughty, peremptory, and determined to die of hunger. What was my surprise at seeing a mild old man, an-

swering with earnestness the questions put to him about his health, complaining bitterly of a sleeplessness which harassed him, and especially of an insurmountable disgust at food. "I am very desirous of eating," said he, "but the smallest quantity of food causes acute pain in the stomach, and aggravates my fever. I have a bitter taste in the mouth, with frequent nausea. I have now passed fifty-seven nights without sleep, and this is the thirty-fifth day since I took any nourishment."

I examined him attentively. The tongue was red and dry; the breath bilious; the epigastrium painful to the touch; the skin covered with sweat; the pulse quick. I retired with the director, who shewed me a report drawn up by six physicians, stating that Morey was tormented by a deep-rooted moral disease; that he had neurosis of the stomach; that he had taken a fatal resolution not to eat; and that he ought to be supported by nourishing enemata, to which should be added a few grains of the sulphate of quinine. Foreseeing that I should differ in opinion from my colleagues, I requested they would assemble on the morrow at ten o'clock in the morning. After a new examination, four of these gentlemen persisted in their opinion, and composed a bulletin, in which they stated that the remedies hitherto employed were the best they could advise.

After an animated discussion, I thought myself obliged, in consequence of their opinion, to express my own in precise terms, declaring that Morey was labouring under intense gastric irritation, which was the cause of his ill health and of his resolutions; and that it was necessary to resort to different treatment in order to arrest the progress of the mischief. In the evening I returned to the Conciergerie, and recommended for the night two ounces of syrup of gum, with the same quantity of distilled lettuce water, to be taken by spoonfuls every quarter of an hour. Morey having tasted the first spoonfuls, drank all the rest at once. He had a little fever in the night. On the morrow, which was Saturday, he took a mutton cutlet, and shaved. I found him much better. In consequence of the diversity in our opinions, a grand consultation of ten physicians was appointed by the President of the Chamber of Peers for Sunday. Having

received my summons too late, I could not attend, but had seen Morey in the morning: he was a little better, but much disposed to complain. It was decided in the grand consultation that he had chronic gastritis, that he ought to be removed to a *maison de santé*, and that the treatment ought to be adapted to the new indications. Various means were proposed for fulfilling them.

On Monday the condition of Morey was much improved; but the more sensible was the amelioration he obtained, the more he seemed to take pleasure in complaining. Next day his lodging was changed; from the low and gloomy room where he was first placed, he was removed to a wainscotted chamber on the first floor, well lighted, and looking into the inner court. This change of residence gave him evident pleasure. He got up for two hours in the day, but he always expressed disgust at food, and especially at meat and broths.

I felt it right, in the bulletin of this day, to insist on the continual tendency of the patient to believe and represent himself worse than he really was—whether his conviction was sincere, or whether it was from artifice. From the state of the tongue, the skin, the urine, and the epigastrium, however, I considered that the affection of his stomach was greatly amended.

On Wednesday, Morey was pretty well. In the evening, as he felt sick, he asked for a little brandy from one of his attendants, who gave him a spoonful. In drinking it, he felt as if it had been fire; but the imprudence was not followed by any important result. Next day, Thursday, he was in his ordinary state—calm and resigned; always repeating that he should never get well, and that this was the last disease he should have to encounter; but still declaring that he would eat with pleasure as often as he wanted food. His wish for strong drink last night, induced us to give him this evening some sweetened gruel, to which had been added a small spoonful of rum*.—*La Lancette Francaise*.

* This case does more honour to the diagnostic accuracy of M. Scipion Pinel, than to his therapeutic activity. The treatment adopted would have done just as well for "neurosis of the stomach," as "gastritis." In reading the *Clinique Medicale*, and other continental works, the conclusion irresistibly

Lithotrity.

It is well known with what eagerness, ever since the discovery of lithotrity, it has been sought to deprive France of the credit, and to bestow it gratuitously on strangers; who have even generously declined the honour attempted to be thrust upon them. They ransacked the oldest libraries; they disinterred ancient volumes which had not seen the light for many a day; they quoted,—they commented—they tortured passages—they copied the representations of instruments—they thought they met with lithotrity everywhere.

It might have been expected that this ardour for rummaging old libraries had worn itself out; but here we have the keeper of records in one of the Sardinian States, attributing the invention of lithotrity to one of his countrymen. He has exhumed an old parchment, in which are depicted the very instruments employed by M. Civiale.

Several journals, and especially the *Gazette de Turin* (No. 127, October 23, 1834), have in fact given out, on the faith of M. Baggiolini, keeper of the records in the city of Verceil, that in the precious manuscripts deposited in the archives of that place, an ancient parchment had been found, giving a design of an operation for lithotrity. M. Baggiolini, induced by a spirit of nationality, which does more honour to his patriotism than his intelligence, has pretended to demonstrate that the instrument represented in the parchment resembled M. Civiale's apparatus; and that its invention belonged to Jean de Romanis, of Verceil (others say of Cremona). This Jean de Romanis, whom we have Frenchified by calling *Jean des Romains*, was certainly a clever man. The invention of lithotomy, by which is called the apparatus major, is attributed to him. Marianus Sanctus, his scholar, improved that method, and published the first description of it in a work printed at Venice in 1535. This work, intitled *De Lapide Vesicæ per Incisionem Extrahendo*, is more remarkable for its matter than its manner; for it is written in a style very far from attractive. What proves that our keeper of the records

has not read it, is that in his notice printed at Verceil, he confounds the method of cutting for the stone, invented by the author in question, with that of Celsus; of which latter method, according to him, Jean de Romanis was the promoter. On the contrary, there is a great difference between the method of Celsus (*De Medicina*, lib. 7, cap. 26), and that of Marianus, or Jean de Romanis*.

However this may lie, the apparatus major has been employed by the greatest surgeons for nearly two centuries; and this is the extent of the obligation under which those affected with calculus be to the genius of its inventor. His title to the discovery of lithotrity is not so well established as M. Baggiolini would have us to believe. Our readers may judge of this by the following communication on the subject from M. le *President de Gregory*; who, occupied with the history of letters and arts among the Verceillese, was induced to write to M. Poggio, secretary of the city. The following is the Secretary's reply.

"December 17, 1834. Signor Baggiolini, who was charged with the duty of arranging the records of the city (Verceil), committed a great error in his memoir, which was printed here by Cerutti. He has proved either that he did not know how to read the parchment in question, or that he expected that his word would be taken as decisive of the matter in question. I have in my hands the parchment referred to, and find no mention in it either of the surgeon Jean de Romanis, or of lithotrity, or of a curative method. The figure delineated is simply that of a sound or syphon (*siringna*). The chapter from which Baggiolini has drawn his observations, speaks of a method of drawing off the urine, when the urethra is narrowed by strictures, or an abscess, or a stone impacted in its course. The parchment in question is a detached leaf of an old treatise on surgery, written in semi-gothic characters, and without the name of the author. It has been much used, and served as a cover to a volume of acts in our archives. Attempts have been made to correct this document; but the council and syndic of the city obliged Baggiolini to return it; and we preserve it with care for the honour of truth."

forced on the mind is, that since physicians think they have done all when they have accurately determined the nature and extent of the disease, the treatment is only of consequence to the patient.

* The plan adopted by Celsus has been called the apparatus minor. See *Cooper's Surgical Dictionary*, article *Lithotomy*.

The letter we have just transcribed, reduces to their just value the pretensions of M. Baggiolini. This honest keeper of records somewhat resembles the librarian of Florence, satirized by P. L. Courier; and who, after having passed six years in commenting on a precious manuscript, had forgotten to read it. Every body knows the tricks which were laid to the charge of our learned countryman, on account of a spot of ink which he had the misfortune to make on a page of this manuscript. This accident has not happened to the parchment of Verceil, which remains in a perfect state, an authentic monument of the strange mistakes of M. Baggiolini.—*La Lancette Francaise*.

M. Souberbielle gave the following reply to the report which M. Double had made at the last meeting but one, on a work by M. Civiale, entitled *Statistical Details on Calculous Affections*.

This academician has reproduced, without criticising them, the manifestly erroneous figures by which M. Civiale expresses the results which he has obtained by lithotrity. It was said, that out of two hundred and fifty-seven cases of lithotrity, only eight patients had perished. This was very surprising, considering that in a report which M. Double made in 1833, respecting calculous patients in the Necker Hospital, he had stated that M. Civiale had lost ten patients out of forty-three that he had submitted to the operation; and in a report made in 1831, by M. Larrey, on another series of calculous patients in the same hospital, five patients had died out of eighteen. Thus, according to MM. Larrey and Double, fifteen calculous patients out of sixty-one died at the Necker hospital; and I cannot explain how the honourable reporter should have confined himself to stating the proportional mortality indicated by M. Civiale; that is to say, six out of two hundred and fifty-seven; while at the same time his own investigations had revealed to him a much higher proportion; that is to say, ten out of forty-three, or fifteen out of sixty-one, if we add together the numbers of the two reports.

This contradiction cannot be attributed to the deviations of M. Civiale, for M. Dou-

ble has retracted nothing of his former report, which, besides, offers all the guarantees of authenticity; and M. Larrey has lately declared publicly that M. Civiale was wrong in pretending to have corrected the errors of M. Larrey's report, for that work was rigorously exact, being founded on authentic documents lodged with the secretary of the institute; and that if he (M. Larrey) had not caused the report and the proofs to be printed, it was from a feeling of regard—a kind of indulgence.

It is against this flagrant error that I protested, in the letters which I have already addressed to the Academy on the subject of this same work by M. Civiale. The first of these letters is dated September 1, 1833, and is entitled, "Letter to the Academy of Sciences, on the Statistics of Calculous Affections." The second, dated the 29th of the same month, has for its title, "Communications, addressed to the Academy of Sciences, on some points of the Statistics, &c." Finally, in September, 1834, I addressed a note to the Academy on the same subject, entitled, "M. Civiale's Figures again."

I believed that I had, in these writings, proved, from my own personal experience, and from the reports of MM. Larrey and Double, the incorrectness of many of M. Civiale's assertions, and particularly the erroneous representation he gives of the mortality which has occurred in his practice; and I have therefore the greater right to be astonished that the honourable reporter has not cleared up so important a point in the discussion, and that he has allowed to remain between the two reports the striking inconsistency which I have exposed. This is the more surprising when we recollect that the arguments I insisted on in my papers have since been brought before the Academy of Medicine, by the members who advocated lithotomy, in the memorable discussion which recently took place. In this discussion the advantage certainly remained with the advocates of lithotomy.

I find I judged correctly of M. Civiale's work, in protesting against the disordered state of its contents, and in shewing the impossibility of reconciling them with each other; since the reporter states that the documents have not the necessary complete-

ness, particularity, and authenticity; and that to print these documents would be to consult neither the dignity of the Academy, nor the elucidation of the question.

I find, in the last work of M. Civiale, a new proof of the system, by the aid of which he wishes to extol lithotrixy; for while he collects the greatest possible number of *lithotomy* cases, why does he not do the same for *lithotrixy*? Why does he not cite the 257 cases of lithotrixy which occurred in his own practice; and why does he neglect those which have been performed by MM. Heurteloup, Leroi, Legalas, Bancal, Amussat, and others? Why does he not include the two hundred cases of lithotrixy which have occurred to various surgeons at Vienna, Munich, Bagdad, &c., of which cases M. Begris speaks, in his *Dictionnaire de Medecine et de Chirurgie Pratique*? In short, why has he not profited by the researches he made on the subject of *lithotomy*, by making a similar investigation on the subject of *lithotrixy*, so as to be able to state the actual condition of as great a number as possible of the individuals who have been submitted to the latter mode of operating. This, I hesitate not to affirm, is the only mode by which we can satisfactorily judge of *lithotrixy*.

I have no intention of criticising M. Civiale's work just now. My only object is to entreat the members of the Commission to notice the representations I have already made to the Academy, on the evidently erroneous calculations of M. Civiale, and that this surgeon may not obtain the suffrage of the Academy for the propagation of errors, to the advantage of *lithotrixy*, and for decrying the operation of *lithotomy*.—*La Lancette Francaise*.

Eels in Artesian Wells.

M. Arago presented to the Academy two little eels which had been thrown up with the water from one of the artesian wells at Elbenf. This fact, which has been verified by M. Girardin, a distinguished professor of chemistry at Rouen, is of great interest, inasmuch as it demands considerable modification of the ideas which have been generally entertained on the origin and course of subterranean water. Many people, even at the present day, think that the water col-

lects in conduits from the effect of gentle filtration; but this opinion can scarcely be reconciled with what is observed at Tours, where seeds and leaves have been ejected in great abundance from an artesian well. It is still farther shaken by the fact related above.

M. Dumeril declared that the animals presented were incontestibly true eels. They are both nearly of the length of those which are seen at certain seasons going up rivers in vast numbers, and which fishers call *the ascent*. These last, however, differ from those presented to the Academy, in being white, with black spots; while those from Elbenf have completely the colour of the adult.

Larva of the Common Fly living in the Skin of an Infant.

M. Isidore Geoffroy communicated, verbally, an observation made by Dr. Fourcault, respecting the larvæ of insects lodged in the skin of a child. A peasant going to work in the fields, had carried thither a infant, which she suckled; and at the end of eight days, perceived a little tumour at the breast, of a suspicious appearance. Dr. Fourcault, to whom she applied, perceived in the centre of the tumour two larvæ of insects, which he succeeded in extracting alive, and preserving, till their transformation took place. It was then found that the larvæ belonged to the common fly.

M. Dumeril inquired if it was well proved that the perfect insect was really a common fly. If it was so, since that kind of insect has no apparatus for piercing the skin, there would be reason for concluding that the tumour had been formed and opened before the parent fly had deposited her eggs there. It was not the same with other kinds of flies, the females of which can deposit their eggs in a perfectly sound skin; but they are furnished for this purpose with an instrument which, as was observed already, is completely wanting in the common fly.—*Gazette Medicale*.

Hospital of Geneva.—White Oxide of Antimony.

The white oxide of antimony, administered by Dr. Lombard in doses of one or two drachms daily, has never produced vo-

miting, or even nausea; which distinguishes its action from that of the other preparations of antimony. The same rule holds with respect to diarrhœa, which has only once followed the administration of the medicine; and even then the number of stools was not great, not exceeding three or four. Cough has been but little affected by the white oxide of antimony. In ten cases in which this symptom was noticed with care, it was found in one to have increased in frequency, to have diminished in four, and to have remained five times unaltered. The state of the skin has been sensibly influenced by the employment of the white oxide. In fact, out of eleven cases, we only found one in which the skin remained dry during the administration of the medicine; while five had the skin habitually moist and wet; and five had abundant perspiration during the whole course of the treatment. From this it would appear that the ancient appellation of *diaphoretic washed antimony*, agreed very well with the medical properties of the white oxide. We have seen that nausea, vomiting, or diarrhœa, scarcely ever attends its use; and the state of the tongue proves that it produces no symptom of irritation in the digestive passages. Out of ten patients in whom the state of the tongue was noticed, we found it white and moist in nine, and red and dry in one only; and even the last case, which terminated in death, presented, on examination, no lesion of the intestinal mucous membrane. This absence of irritation in the digestive canal, is one of the characteristic traits of the white oxide of antimony; since it furnishes us with the most essential indication for administering it. When, for instance, we meet with pneumonia in patients weakened by age or prior diseases, and whose strength might be too much depressed by the employment of bleeding and tartar emetic, the white oxide of antimony may overcome the disease without causing any risk to the patient.—*Gazette de Medecale*.

Tracheotomy. By M. Moreau.

Laryngitis, or laryngo-tracheitis, requires, at a certain stage, a surgical operation, which has been improperly termed *bronchotomy*—the bronchia not being the parts engaged. It is more correct to give to every

operation practised on the principal air-passage, a denomination which definitely points out the part concerned. We shall, therefore, speak of *tracheotomy*.

From the time of Asclepiades, of Bythinia, who may be regarded as the inventor of the ingenious proceeding of making an artificial passage for the air, the ancients were accustomed, in all cases of suffocation, to incise the integuments and the trachea transversely, between the third and fourth rings; thus (so to speak) cutting the patient's throat. At a later period, Deckers and Buchot, in order to avoid hæmorrhage, pierced the soft parts and subjacent trachea with a trocar armed with a canula; but they frequently made a contused wound, injured the vessels, and were exposed to the danger of piercing the trachea through and through, so as to enter the œsophagus, &c. Vicq d'Azyr, guided by anatomical considerations, incised the crico-thyroid membrane transverseley. Nevertheless, he gained by this means only a little opening, with a wound difficult to heal. Since his time, various modes of proceeding have been imagined, such as the *tracheotomy* of former times, the *thyrotoimy* of Desault, the *cricotracheotomy* of Boyer, and lastly, the *sub-hyoideal laryngotomy* of M. Malgaigne. Of all these methods, *tracheotomy* alone is in repute in the case of membranous croup.

In the *Gazette Medecale* for January 31, 1835, I described a bivalve canula, which is to be used in the operation which I now propose—*sub-cricoideal tracheotomy*. I shall not enter on a discussion of the various methods of procedure enumerated above. I shall confine myself to an examination of the parts on which we operate in *ordinary tracheotomy*, and of those concerned in *sub-cricoideal tracheotomy*. I designedly omit, therefore, *thyroidotomy* and *sub-hyoideal laryngotomy*, because these modes of operating are not employed, except in cases where foreign bodies have found their way into the air-passages. I omit, also, the *cricotracheotomy* of Boyer, for the section of the cricoid cartilage cannot in any degree assist in keeping the wound open; while the elasticity of that cartilage is such, that it is almost impossible to keep the lips of the wound apart, even with a dilator.

Ordinary Tracheotomy.—Proceeding from

above downwards, from the cricoid cartilage to the top of the sternum, and from the superficial to the deeper parts, we find the cervical aponeurosis, the sterno-hyoid and sterno-thyroid muscles, and the first rings of the trachea; then the isthmus of the thyroid gland, of variable size; next the thyroid plexus of veins, a layer of cellular tissue, and the trachea crossed inferiorly by the brachio-cephalic trunk. We have also to remember that all the soft parts may be infiltrated with serous fluid, or with gas, and the veins may be gorged with blood.

In performing the operation, which I shall only superficially describe, we divide successively (in the median line) the skin and aponeurosis, and thus come between the sterno-hyoid and sterno-thyroid muscles of each side. Then, starting from the thyroid body, we divide the thyroid plexus of veins, and the trachea is uncovered.

M. Trousseau has remarked, that the more embarrassed is the respiration, the larger are the thyroid veins, and the more blood do they yield. He therefore advises that, notwithstanding the hæmorrhage, the trachea should be opened immediately, for a ligature, if applied, would not always be sufficient to arrest the flow of blood. He also takes the precaution to place a small piece of sponge beneath the edge of the wound and over the mouths of the divided vessels, both to check the hæmorrhage, and to prevent the entrance of air into the veins, an accident which, according to Messrs. Larrey and Dupuytren, is instantly fatal. As soon as the trachea is opened, we ought to incline the patient forwards, so that the blood may flow outwards, and the respiration be freely established, which generally puts an end to the hæmorrhage. Sometimes, however, in spite of these precautions, the hæmorrhage persists; on which account M. Recamier advises us, whenever the state of the patient will permit, to wait twelve or twenty-four hours before opening the trachea; and for the same reason authors recommend that the patient, if able, should take a few deep inspirations, and to tie all the vessels which continue to bleed, before opening the trachea. It is with this view, lastly, that I propose *subcricoideal* tracheotomy, which has the following advantages over the proceeding described above. 1. It

finds the trachea less deeply situated. 2. It does not expose us to an encounter with the brachio-cephalic trunk. It is performed in parts sufficiently free from vessels not to yield much hæmorrhage.

Subcricoideal Tracheotomy.—Between the inferior border of the cricoid cartilage and the upper curvature of the isthmus of the thyroid gland, there is a space about a quarter of an inch long, entirely free from vessels. It is formed by the first rings of the trachea. Below is the thyroid isthmus, which is occupied by the venous plexus only in its two inferior thirds. Very rarely the thyroid arteries, which pass along each side of its superior border, anastomose in its middle portion. It is, therefore, on its anatomical peculiarities that subcricoideal tracheotomy is founded.

The instruments required for the operation are, a straight or convex bistoury, a tenaculum, waxed threads, fine sponges, tepid water, and linen. The patient ought to be placed in a sitting posture, or lying on his back, with his chest raised, and the hands placed behind him, so as to give free play to the respiratory organs. The head should be slightly turned back, and kept motionless by a sufficiently resisting pillow. The operator places himself at the right hand of the patient, in any position which is most convenient to himself, with the bistoury in his right hand, while he commands with his left the larynx, and the parts on which he is to operate. The skin is stretched by the left thumb and inner border of the left hand. He then cuts through the integuments in the median line, layer by layer, to the extent of an inch, or an inch and a half, from above downwards, beginning at the superior border of the cricoid cartilage. We then come to the cellular tissue which separates the sterno-hyoid and sterno-thyroid muscles of each side. This is divided, and the trachea is uncovered, as well as the isthmus of the thyroid gland. The operator then plunges the point of the bistoury immediately beneath the inferior border of the cricoid cartilage, and divides the trachea from above downwards, in the median line, to the extent of about half an inch; including in the incision the superior third of the thyroid isthmus. The wound is cleaned with a little bit of fine sponge, and the bi-

valve canula is introduced. The only difference now in the patient's respiration is, that it takes place through an artificial channel.

It should be noticed that this proceeding requires the application of the *bivalve* canula; an opening of half an inch not being sufficient to admit any other.—*Gazette Medicale**.

—o—

The London Medical

AND

Surgical Journal.

Saturday, November 28th, 1835.

THE MEDICAL REFORM ASSOCIATION—
THE PRIZES CARRIED OFF BY NO-
BODY—OUR BITTER DISAPPOINT-
MENT.

BEING as all the world knows stanch advocates of Medical Reform, we have for some time contemplated with much satisfaction the existence of a Medical Reform Association, but events of recent occurrence have cast a shadow on our happiness—*surgit amari aliquid*.

Prizes having been offered for the three best essays on Medical Reform, and essays having been forwarded to the Association from different parts of the world, it was natural to expect that each of the prizes would be awarded to *somebody*, and we have been feeding our imagination with the delusive hope, that all the prizes would, without question, be awarded to *us*, seeing that we are continually publishing transcendent essays on Medical Reform in the columns of this Journal. What happens think you? In walks Nobody—the emptiest fellow in the world—who, setting us and all our competitors aside “with the back of his hand, thus,” takes possession of the three prizes with the full approval of the Committee of Examination!

In the first bitterness of our chagrin we had like to have adopted the opinion that this same Nobody himself constituted the Committee of Examination—an hypothesis which

would have sufficiently accounted for his getting the prizes, and which derived support from the fact, that although we entreated all our acquaintance, with tears in our eyes, to tell us who the Committee were, we could get no sort of information on the subject; nay, a still more extensive process of nullification floated vaguely through our mind; the analogy of the Rosicrucian fraternity presented itself, and we need not tell the more learned of our readers, that strong doubts have been entertained whether that celebrated Association ever had any real being, and whether it did not owe its imaginary existence to the machinations of that waggish divine, the Rev. John Valentine Andrea, who made half the savans of Europe believe that they were members of it; the analogy was strengthened by etymology—the affairs of the Reform Association had evidently been conducted *sub rosa* and it was equally clear that we had been *crossed* in our expectation of getting the money.

But theorizing is of no use; we are practical men, and all we are certain of is, that Edward Harrison, M.D. John Epps, M.D. and Joe Hume, M.P. have, or fancy they have, something to do with this matter; that Dr. Harrison advanced one hundred pounds sterling, or imagined that he did; that Nobody got the prizes, or thought he got them; notwithstanding which, Joe Hume has, or conceives he has, the money in his pocket.

After all, we may admit the strong *probability* that the Association actually exists, that Nobody has got the prizes, and that Joe Hume has got the money. Supposing this to be the case, we would gravely remark, that the gentlemen who have competed for the prizes have a right to think themselves ill-used.

When a set of men start for a race, it is not essential to its being fairly won, that the fortunate individual shall have run very fast, but simply that he shall have run faster than any of the rest. The same principle

* See also the *Gazette Medicale*, Vol. 3, No. 5, January 31, 1835.

applies to literary competition; the inducement to take the trouble of writing for a prize is the chance of winning it, and if the parties concerned find, by the event, that no chance at all had existed for any of them, inasmuch as no prize is forthcoming, they must all naturally feel discontented at having been induced, by a fallacious expectation, to engage in a labour which turns out to have been from the commencement fruitless, and which not one of them would have engaged in, had he previously known that he was to "fight as one beating the air."

We would therefore recommend the Association to revoke their present sentence, and give the prizes to those most worthy of them; or, at all events, to let it be distinctly understood that, on the next occasion, the prizes are actually to be given: if this be not understood, we venture to predict that the next time there will either be no essays at all, or very bad ones; since no man endowed with much intelligence is likely to exert himself greatly to attain the distinction of being considered no worse than his neighbours.

—o—

THE NEW POOR LAW ACT.

To the Editor of the London Medical and Surgical Journal.

SIR—It has fallen in my way to see much of the operation of the new poor law; and, excellent as I am convinced that many of its provisions are, I am compelled to lift my voice against the manner in which it is made to bear against the interests, the rights, and the respectability of the medical profession. Compelled by the laws of our country to fit ourselves for the highly responsible situation which we fill in society, by undergoing a tedious, expensive, and laborious education, I cannot but maintain, that the same laws, instead of making us the dependant tools of those who are interested in oppressing us, and incapable of appreciating our services, ought rather to shield us from oppression, and protect us from debasement and injustice. But it is not so. Either through the new poor law itself, or through the manner in which that law is executed by the Board of Commissioners, the medical practitioner who has anything to do with the attendance of the poor is placed in the most humiliating, the most unfortunate

situation. Bad enough was the situation of the parish surgeon under the old poor laws. The writer of this letter has suffered but too deeply from the abominable contract and tender systems, which even then too generally prevailed, and from the wretched pitance with which even the most liberal parishes thought fit to reward his labours. Placed for more than thirty years in a district, one-half of the inhabitants of which were paupers, it has been his fate to labour on from youth to age, not "to earn the bitter bread of servile toil," but to see the bread which his toils and his talents have earned kept from himself and his children by the cupidity and illiberality of those in whose hands were placed the administration of the law. To prove how inadequately his exertions were remunerated he need go no farther than to record the following facts:—that in one parish, for the attendance of which he was paid an annual sum of ten guineas, he had in one year, at a distance of three or four miles from his home, to attend fifty-three cases of severe autumnal remittent; and that in another, he had the satisfaction of receiving his accustomed stipend of sixteen guineas for attending, amongst much other sickness, seventy-two cases of the worst kind of typhus fever; most of which ran on for three and even four weeks, and one of which actually held an uninterrupted course of twelve weeks before it terminated in death.

But if the old system was bad, the new one is a thousand times worse. A practitioner in the former case had to do with the officers of a few parishes only; persons well known to him, perhaps his patients and his friends. They had some terms to keep with him. Mean as even the most liberal of these men are in the management of parish affairs, there was a point of meanness beyond which they could not go; or if from ill will, extreme niggardliness, or any other cause, they were led to step beyond it, there was the parish vestry to apply to; and I have generally found an appeal to an open vestry productive of a favourable effect, where the attempt to talk into justice or liberality the one or two individuals who have made up their minds to act unfairly, has always unfortunately failed. But under the new law, we have not the officers of the parish to depend on; we have no longer a parish vestry to appeal to as a court of ultimate resort; but we have in their stead a body of guardians chosen out of the various parishes in the union, and with them all the resident magistrates, who, as proprietors, have a greater interest in lowering the parochial expenses than even the tenants themselves. A considerable portion, perhaps a large majority of this board, are comparatively strangers to the respective medical gentlemen in the different districts; they are naturally bent upon reducing the rates to the lowest possible point; each person is emboldened to make an illiberal

proposal, by the countenance he feels sure of receiving from others; the odium of a mean and unjust action rests not on the shoulders of one, but is shared amongst the whole of his compeers: the pleadings of one or two kindlier spirits are outvoiced by the acclamations of the rest, and thus, "armed with a little brief authority," from which there is no appeal, they

"Playsuch fantastic tricks before high heaven
As make the angels weep."

A board of guardians forms in truth, as at present constituted, and with its present powers, a combination of employers, legally, but unjustly authorised to force upon the employed whatever terms they may think proper, and furnished with every motive to make those terms as hard as possible.

Let us now see in what manner the working of the new poor law has inflicted upon our medical brethren so intolerable a grievance. In the first place, the abominable system of *hiring* by tender, has been universally adopted, though, strange to say, no others of the union officers have been subjected to the same disgraceful process. For the chaplains, the clerks, the auditors, and the relieving officers, a salary has been fixed, bearing, of course, some proportion to the duties which they have to perform, and that salary being announced in a public advertisement, the candidates have been called on to send in their names and testimonials; and from amongst these applicants the choice has been made with some show of fairness, if not with absolute impartiality. Not so, however, with the medical officer. An open announcement of the wretched pittance with which they generally think fit to reward his exertions would expose their conduct before the tribunal of public opinion in a manner which they would not relish. They are wise enough too to know that they can generally obtain the requisite services through the medium of a tender, for a smaller sum than that which they would dare to offer in a public advertisement. They know that the established practitioner will reduce his demand to the lowest possible pitch, from the fear of losing that practice of which he has been, perhaps very long possessed, and upon which, poorly as his labours have been rewarded, the support of his family in part depends; while an opponent, an enemy, or perhaps some young aspirant after practice, who has no family, who perhaps estimates his time as nothing, and his talents at a trifle, and may not be much out in either calculation, will be led, by the desire of superseding his rival, to offer his services for a sum of the most debasing description, reckless of the influence of so ill an example on his own future prospects, as well as on the prosperity and the respectability of his profession.

Another objection to the present operation of the law, is its perpetual and harassing interference with every man's established

practice, especially in rural districts. Under the present state of things, a practitioner will never know what he has got to depend on. The talents which have formed or enlarged, will not ensure the permanency of his connection; the humanity which may have won the hearts of his poor patients, will not preserve him from the chance of being dismissed from their attendance. In vain by his skill, his industry, and his attention, will he hope to command success and to defeat opposition. Built on a sandy foundation will be the home, which encouraged by these flattering hopes, he may have been induced to erect, and uncertain as the winds, the happiness and well doing of the family of whom, in the confidence of success, he may have become the husband and the father. The vote of a board of guardians may blast his fairest hopes. Their fiat may create opposition where it has never existed, or revive it where it has been for a time destroyed. The members of the profession will be kept in a constant ferment; every man will be set in array against his neighbour. Jealousy and strife are too proverbially the characteristics of the profession under all circumstances, and it is but natural that they should be so, when we consider that it is not worldly profit alone for which they contend, but that the love of fame, the pride of talent, the desire of excelling, the eager longing after victory, urge them on in their career. But that jealousy and strife of which we before had reason to complain must now be increased a hundred fold. Year after year the disgraceful struggle will be renewed, year after year the medical attendant of one district may be forced in among the patients of another; and thus will the peace, the prosperity, the character of the profession be destroyed, and a continual and illiberal competition be established among its members; not a competition in science, in talent, in attentiveness, in humanity, but a competition of the basest and most humiliating description, having for its object the acquisition of a wretched modicum of paltry pelf, at a woful expense of time, and of talent, and of character, and whose necessary end must be the infinite production of "envy, hatred, and malice, and all uncharitableness."

I have yet more to say upon this subject, and I have especially to describe the mode in which several unions whose proceedings have fallen under my observation, have conducted the appointments of their medical officers. These matters will form the subject of a second, and perhaps, of a third letter. In the meantime, I am, Sir,

Your obedient Servant,

CHARLES VERRAL.

Nov. 7, 1835.

THE PRESTON DISPENSARY MEDICAL OFFICERS.

To the Editor of the London Medical and Surgical Journal.

SIR—As you have always evinced a desire to rectify abuses in the medical profession, and to expose the depravity of public officers to that obloquy which it merits, we trust you will permit us to lay before the medical public, through your journal, an instance of intrigue and faithlessness, that is, perhaps, unique in the annals of our institutions.

The principal medical institution in Preston is a dispensary, which was established in 1809. At first, it was managed by two or three physicians and a house surgeon. In 1830, three surgeons were appointed to assist in the labours of the establishment. The two senior physicians then consigned over to their surgical colleagues, such operations as they had previously performed; but the junior physician, Dr. Moore, tenaciously clung to his share of the surgical cases, and continued to act as a general practitioner, at the same time that he laid claim to the honour and fees of a physician in private practice.

Thus the business of the dispensary continued to be managed, till the senior physicians withdrew, and junior ones were appointed. These gentlemen, imitating, it is supposed, their senior, took their station as general practitioners also. There was no division into medical and surgical practice, but each honorary officer took all cases indiscriminately, that were presented on his day for the reception of patients. There were ostensibly, three honorary physicians and three honorary surgeons attached to the institution; and so the rules enjoined, and the reports continually declared; but in reality there were six general practitioners. Notwithstanding this anomalous state of things, the greatest harmony seemed to prevail among the honorary officers up to December last. Then an alleged irregular attendance of some of the medical officers, induced the sub-committee (whose duty it was to see that the affairs of the institution were regularly conducted) to inquire into the cause of the neglect, and where the offence rested. Dr. Moore (whether to screen himself from censure or not, he best knows) went to the sub-committee clandestinely, and told them that they must "look to the doctors," and they need not fear if some of the medical officers were to resign, as their places could readily be supplied. The truth of this statement Dr. Moore afterwards chose to deny, notwithstanding the united testimony of several of the members of the sub-committee, alleging that he had merely directed the sub-committee to "look after the shop," meaning the dispensing of the medicine, (the doctor's phraseology frequently needs interpretation), but unfortunately for himself, he

had declared to a medical friend shortly after meeting the sub-committee, that he had been telling them "to look after the doctors;" after hearing the testimony of that friend, he reluctantly admitted that he had made use of such an expression, but that it was by way of a joke. Some people, however, have such an odd way of joking, that no person but themselves can conceive how their expressions could possibly be construed into a jest.

The gentlemen of the sub-committee thought the doctor was in earnest, and as they had not the candour or honesty to bring the charge against the offenders, (and they well knew who they were), they hit upon the expedient of procuring a book, in which they resolved that the medical men should enter their names, and the time of their attendance, whenever they came to the institution. In this they exceeded their powers, for their duties were defined to be simply, to observe and report to the general committee. The book was first presented to the surgeons, who, not aware of any neglect on their part, and knowing that the sub-committee had no authority to enact any regulation for their guidance, naturally felt indignant at what they regarded as an insult, and immediately entered into a protest in the book, against the measure. This protest, the physicians and Dr. Moore, with the others, afterwards signed. The sub-committee were greatly displeased at this resistance to their assumed authority, and not a little surprised to find that the instigator of the whole affair was arrayed against them. The general committee was called together, and the medical officers, as part of the committee, attended the meeting. An attempt was there made to force the obnoxious regulation, but meeting with more resistance than they seemed to anticipate, the authors of the measure, with a very bad grace, consented to modify it; obliging the house surgeon to be the inspector, instead of compelling the honorary officers to be self-inspectors. The treatment which the medical officers met with at that meeting, was such, that they thought they could no longer continue to serve the institution, and shortly afterwards they all sent their resignations to the secretary, offering, however, to fulfil the professional duties till successors were appointed. The committee accepted the resignations, but took no steps to fill up the vacancies. Repeated meetings of the medical officers took place, at the suggestions of Dr. Moore, and at his house. He several times expressed great pleasure at seeing the unanimity that pervaded the meetings, and frequently reminded his colleagues, in his peculiarly elegant language, that "*there must be no splitting,*" but "*all must pull together.*" He required a pledge from his colleagues, *that no opinion should be given to the committee, or subscribers, without a general consultation, and that all must go out, or remain in together;* adding, *if any question be put to*

me, I shall say, I can make no reply till I have first consulted my colleagues.

In May, a meeting of the subscribers to the dispensary was called, to consider the resignation of the medical officers, and make some "verbal alterations" in the rules of the institution. Dr. Moore drew up a memorial to be presented to the meeting, in which he gave a partial statement of the causes which led the medical officers to resign their appointments, and in which he declared the differences between them and the committee to be "irreconcilable." In deference to his opinion, four of his colleagues signed this address, and were thus prevented from being personally present at the meeting. When the subscribers met, they expressed no opinion of the cause of the resignation, but they confirmed all that the committee had done, and passed a rule to exclude four of the honorary medical officers from the committee; thus actually attempting to punish them for having resisted a most arbitrary and uncalled for measure. The appointment of successors was still not made. When two of the surgeons became acquainted with the result of the proceedings of the subscribers, they felt disposed immediately to withdraw their services; but as it had been previously agreed to act in concert, they were wishful first to ascertain the feelings and intentions of their supposed friends before they took any final step. Accordingly, they called upon Dr. Moore, who met them with a smile, and the salutation of "Well gentlemen, I know what you have come about, but I have made up my mind to stay, whoever goes out; and I have told one of the subscribers so." When charged with violating his pledge, he replied, "Well, perhaps I have acted imprudently, but so I have done;" and then he threw upon the table an old coin, making some observation upon it, with a view to change the subject of conversation. He had suddenly discovered that, as he said, "it would not do to quarrel with the whole body of subscribers; that the poor should not be made to suffer for the faults of the committee;" and made use of a variety of other sentimental expressions of humanity, which he had entirely forgotten or overlooked for five months, during which the affair had been pending. The surgeons afterwards found, to their surprise, that the other two physicians of the charity, Drs. Alexander and Norris, influenced by Dr. Moore's representations, had also come to the determination to sacrifice their honour and consistency, to what they conceived to be their interest. Thus was explained a previous declaration of Dr. Moore's, that he knew there were medical men who would serve the charity, if the number of officers was reduced.

After such an instance of perfidy and deception, the surgeons considered themselves bound, for the honour of their profession, to separate themselves entirely from the phy-

sicians, and to act independently of them. They accordingly withdrew from the institution, and left the physicians in peaceable possession, apparently to their great satisfaction; although they had received official intimation that the committee had accepted their resignations, they knew that no apology would be offered for the insults which had been given to them, and with the disgrace of having one of their number excluded from the committee, and an inspectorship appointed over them. We regret, sir, the necessity of this exposure, and disclaim all feelings of personal animosity, but we conceive that it is our duty to hold up to public disapprobation, conduct so unprofessional, and so inexplicably base as that which we have brought to light. We offer no comments upon the previous statements, nor attempt to ascribe motives to individuals, but rest satisfied with a simple declaration of the truth, assured that we shall have the sanction of every honourable man to the course which we have pursued, and that reprehension will be bestowed where it is due.

We have the honour to be,

Your obedient Servants,

ROBERT BROWN, } Late Honorary Sur-
RICHARD INMAN, } geons to the Pres-
JAMES HARRISON, } ton Dispensary.
Preston, Lancashire,
November, 12th, 1835.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Clinical Remarks on cases of Rheumatism, and Scabies complicated with Impetigo. By Dr. Elliotson.

GENTLEMEN—I have to speak to day, of four cases of rheumatism, three of them inflammatory, one of them of an opposite character; it is not a mere chance that three of them are inflammatory, for you will generally find a greater number of cases of this species of the disease than of the other. The cases we shall have to consider, all occurred in men; this is not accidental either, for men are much more exposed, from the nature of their employments, to the causes of rheumatism, than are the opposite sex.

The first case is that of Thomas Welsh, aged 18, who was admitted August the 1st. He states himself to be a hair-dresser, that a few days ago he received a blow on the left elbow, which produced an abscess; the left shoulder soon after became swollen and painful, and the right one soon became similarly affected. He has sweated a good deal since the commencement of these symptoms. Now, you will generally find the patients sweat in the beginning of rheumatism, if kept at all warm: sometimes it is very profuse; sometimes, however, there is only pain,

without sweating. The pain is neither aggravated or relieved by heat; pulse 96, sharp; the tongue white, and moist. You will generally find this sort of tongue in acute rheumatism—not a furred or red tongue, but more or less moist and white. The bowels are confined; urine high coloured; great thirst; skin hot; no pain in the head.

28th. He was bled to eighteen ounces, and a draught, containing 3 ss. of the vinum colchici, ten grains of the carbonate of magnesia, one drachm of the sulphate, and one ounce of water, given every six hours; and to open his bowels, eight grains of calomel given at bedtime. The blood was bled and cupped; this you will find is generally the case in acute rheumatism. The pain and tenderness in the shoulders were not much relieved, and on the 19th he was bled again, and five grains of calomel given every six hours. The report on the 1st of September states that he slept better last night; as his shoulders still continued painful, ten leeches were applied to each of them, which considerably relieved them; as the mouth was getting sore the mercury was omitted; the blood was bled and cupped.

8th. As the pain in the shoulders still continued severe, a quarter of a grain of the muriate of morphia, the usual dose, was given him every night: there is no objection to this medicine in inflammatory rheumatism, when you have abstracted blood, and given colchicum and mercury at first. Sometimes you will find the inflammation gives way when the mouth becomes tender; in some cases, however, it requires to be very sore before it has a decided effect on the disease. It is my plan always to leave it off when the mouth becomes affected, because, by continuing it afterwards, you cannot tell to what extent the soreness may go; if you find the soreness going off, without curing the disease, you can have recourse to the medicine again.

10. Still finding the pain and tenderness to be severe, six leeches were applied to each arm, and on the 12th, twelve more to the left shoulder, and five grains of the pil. hydrarg. were ordered three times a day; the pain, which had been severe, was somewhat relieved by the last leeches; blisters were applied to the shoulders. On the 19th the pain is reported to be more severe during the day than at night; the mouth is not affected by the mercury; the morphia was increased to day to half grain doses, and the colchicum mixture given every six hours; fifteen leeches were also applied to each shoulder. On the 23rd, the shoulder joints were still very painful, but less so than at the last report. Now, a very unusual circumstance occurred in this case: the cellular membrane around the shoulders became inflamed and suppurated; now, in rheumatism of the inflammatory kind, there is generally swelling of the cellular membrane around the joint, as well as swelling of the bursæ, from too great

collection of synovia, but here the cellular membrane suppurated, and the matter had to be let out; we cannot, however, say that rheumatism produced the suppuration, for the cellular membrane is evidently not the seat of rheumatism—that disease is situated in the ligaments and aponeuroses, which do not suppurate in this manner; but phlegmonous erysipelas was excited in the surrounding cellular membrane, and it suppurated. The pulse fell immediately. Mr. Morton had given egress to the matter, a considerable quantity of which was discharged. From this time he continued to improve, and was discharged well, on the 27th of October.

The next case is that of D. L., aged 40, who was admitted on the 22nd of August. He states himself to be a pewterers' labourer; he was some time since in the hospital for palsy, the result of his employment being amongst lead; he left the hospital much relieved, but the palsy returned soon afterwards. He now complains of great pain in the hips and knees; the pain is much increased by heat; he has profuse cold, sour sweats, complains of weakness in the limbs; the arms are rather tremulous. You will frequently find that in the higher, as well as the lower classes, patients will complain of debility in the limbs, when there is no real weakness existing, but only pain on motion. His eyes were suffused and blood-shot, he feels giddy, and occasionally has pains in the head; pulse 94; tongue white, dry; bowels confined; urine high-coloured. We gave him a mixture like that in the last case, and his pains were much relieved. On the 17th, the report states he is much improved: as he is very weak, and has had a shivering fit, quinine was ordered him, and the colchicum omitted. On the 1st of September pain came on at the bend of each elbow; this was evidently rheumatic, but not of the inflammatory kind; I therefore, gave him four grains of the hydriodate of potash in solution, three times a day. This fact illustrates that an inflammatory species of a disease may and does often go into the opposite kind, and requires an opposite plan of treatment, so that you have to ring changes. On the 5th, the pain was still in the fingers, wrists, and elbows; a blister was therefore applied to the right arm. On the 18th, as the shivering continued, he was ordered to increase the quinine to ten-grain doses; which was still further increased on the 15th, to fifteen grains.

26th. No shivering fits since last report. He continued to improve until the 27th of October, when he was discharged well.

The third case is that of a young man, whose rheumatism was of an inflammatory kind; he did not require very active treatment: we cupped and purged him, and shortly afterwards he was discharged, well.

The next case is one of an entirely opposite character; you will see the difference

immediately. J. S.—, aged 40, was admitted on the 19th of September. Five years ago he caught cold, while riding on the outside of a Brighton coach on a cold wet night; a week afterwards he felt pain on the outer side of the left ankle, which soon extended up the leg and thigh in the course of the sciatic nerves, as high up as the great trochanter: he was under treatment for three months, when he recovered. He had a similar attack about two years since, and again, for the third time, about four weeks ago; he cannot assign any causes for the last two attacks. The pain has continued to increase since the commencement of the attack until now. The present symptoms are severe pain along the course of the sciatic nerve, popliteal and external cutaneous nerves of the left leg, from the great trochanter to the external malleolus; there is tenderness on pressure over these nerves, and pain on each side of the knee, on attempting fully to extend the leg. The pain is more severe when in bed at night, and he gets little sleep; it did not, however, appear that it was the warmth of the bed that affected him, for the pain was relieved by the warmth of the fire. There is great weakness, and frequent tremor of the limbs, no redness or swelling; the left upper arm is sometimes slightly affected; tongue white; little appetite; some thirst; pulse 80. Mr. Taylor made an accurate diagnosis in this case; he ordered the patient to have half a drachm of the volatile tincture of guaiacum; this was a very proper dose for a man; it might be well, in case your patient was a delicate female, to commence with ten drops for a dose, and to gradually increase it, until it is effective; the effect of an over-dose is to produce sickness, feverishness, or purging, or even all of them combined: it is, however, common for it to produce purging when given in proper doses. On the 21st, the medicine not warming him, or producing sickness, the dose was increased to a drachm; on the 24th, to a drachm and a half, and on the 28th, to two drachms; and he was ordered a warm bath. On the 30th, he used a liniment of olive oil and turpentine, applied to the affected parts. The bath gives him relief for three or four hours after using it. On the 1st of October, the dose of the medicine was increased to three drachms.

On the 5th, he is reported better and the medicine has rather purged him.

On the 9th, he had less pain, the medicine warms him, but he don't know for how long after taking it, the warmth continues; the leg is warmer than it was. Now, I have had to give a large dose of this medicine, as much as two drachms and a half, or three drachm doses to old people before I could warm them. As I have said before, increasing this medicine, by degrees is much better than giving large doses at first, if sickness is produced by it. Hydrocyanic acid is not likely to relieve it, from the stimulating character of the medicine. Now, had this patient gone on

with half-drachm doses of this medicine, it is likely it would have done him no good; you will hear people say they have taken this medicine, and that for a length of time without experiencing any benefit from it; it is often so with this medicine, but the question arises, How did you take it? in what doses? and for what length of time?

Now, when your patient gets to be warmed by this medicine, you may reduce the dose—sometimes they are warmed, at first, for an hour or two, then for three or four hours, and so on, until they are always warm. Our patient had a little diarrhœa come on, but this was stopped by one or two doses of opium; he continued to improve and was discharged on the 3rd of November, well.

Now this patient I am sure would not be relieved by colchicum; mercury might have relieved him, for it is effective, both in cold and warm rheumatism; the hydriodate of potash might also have done good.

Sir Gilbert Blane states that this medicine is useful in active inflammatory rheumatism, when it occurs in scrofulous people, but I should fear it would be too stimulating; I should fear it less for its purging than for its stimulating effects.

Scabies with Impetigo.

M. N. was admitted, Oct. 13. About a fortnight since, she observed an eruption about her ankles, and the dorsum of her feet; soon after, it appeared in front of her legs, and back of her hands and wrists; lastly, on her arms, chest, and side of the neck. It was attended with a sensation of heat and itching on the foot and about the wrists; a few small phlyzaceous pustules presented themselves on the arms, legs, and neck; the eruption is in the form of vesicles, congregated together, and attended with inflammation, much heat, and itching; her general health is good; she was bled to twelve ounces, and used the warm bath; the sulphur ointment was rubbed in; the next day the blood was bled and cupped; the eruption is better; there is less heat and itching: as the bowels were confined, she had a purgative given her. On the 24th, the eruption on the feet and hands had much declined; that on the arms and legs remained the same; she complained of heat and smarting in those places, from the application of the ointment, which was ordered to be omitted. On the 31st, the eruption on her feet and hands had almost disappeared; that on the arms, legs, and neck, was paler, and discharges a little. On the 10th, she went out well.

Now, we have had several cases like this since the hospital opened; patients have had the itch cured with the sulphur ointment, but the itch was complicated with another cutaneous disease, which was made worse by the ointment; these sort of facts sometimes puzzle people. I soon found at St. Thomas's, that in itch the skin is sometimes very irri-

table, and as long as the sulphur ointment is used, the irritation goes on; one part of the skin being irritated, irritates the other by sympathy, until the whole limb becomes in a state of inflammation, and is red and rough; sometimes eczema takes place, and sometimes even impetigo: it was so in one case. It is useful to bleed in these cases, not to cure the itch, but to relieve the irritation of the skin; we also kept her bowels open for the same purpose. Specific inflammatory cutaneous diseases, though somewhat relieved by antiphlogistic treatment, must have a specific remedy for their perfect cure.

Cases of Dyspepsia, Scrofula, and Phthisis, with Clinical Remarks, by Dr. Elliotson.

Creosote in Phthisis.—The first case, gentlemen, I have to speak about is a very unsatisfactory one, from the treatment being incomplete, the patient leaving the hospital before he was cured. He was, however, greatly relieved by the plan we pursued, and, had he stayed, would, no doubt, have received still further benefit from the medicines he was taking. It was a case of severe dyspepsia, in which a vast quantity of acid was generated; sometimes in this disease you will find there is no increase of the acid, beyond the usual quantity in health, the fluids being neither acid nor alkaline; in other cases the acid is so strong that it would corrode the stomach and throat, were not the mucous membrane lining those parts so well protected. The case is that of P. E. who was admitted on the 8th of September. The report states that he had had syphilis, which was treated with mercury; a node formed on the tibia, succeeded by an abscess, which was opened; the bone is now exposed to an extent of three or four inches, quite black and moveable. On his admission, he complained of burning pain in the stomach on taking food; he relieved himself of this pain by inducing vomiting, which he accomplished by putting his finger down his throat. Now, I have had this burning pain when ill with other diseases, and I relieved myself by vomiting induced in the same way. Water and oysters are the only things which do not give him pain on being taken into the stomach. When he vomits, the fluid ejected burns the throat and mouth, and is intensely acid. He has been within these three weeks in St. George's Hospital, under Dr. Macleod, who gave him complete relief by giving him hydrocyanic acid; but when he was transferred to the surgeons, and discontinued its use, the disease immediately returned. He has had rheumatism in the upper extremities, but as he got stronger, from the bark which was given him while under treatment for the dyspepsia, the pains left him. At present there is tenderness on pressure over the epigastrium, but otherwise no pain except when he takes food. His appetite is good, but he retains nothing on his stomach. He has insatiable thirst,

which soda-water relieves more effectually than anything else. He loses a good deal of blood from piles; he says he has had as much as a cupful come away at once; the quantity, however, is generally much less. His countenance is pale; lips and gums less red than usual; tongue pale, moist, and clean; bowels open; motions natural. Now, the anemia was from want of blood—from loss of blood—he was a good instance of great anemia. Great thirst is not an uncommon thing with persons who have too little blood—they often complain of thirst; but the acid coming up would in this case itself have caused thirst. I thought this a good case for the administration of creosote, and therefore ordered him two grain doses: from this he did not receive any benefit, but the pain was rather increased. His was not common vomiting; the acid being present, came up without the effort that attends vomiting. This was an instance in which creosote did not agree; where there is a little inflammation, the administration of creosote does harm—such is the case, probably, where there is a raw surface. The stomachs of some persons will not, however, bear the smallest quantity of creosote. It appears that it did not suit our patient; but he had an aversion to it, and he might have said it increased the pain because he disliked it. It is, however, wrong to disguise any fact; for though I believe creosote to be an admirable medicine in these sort of cases, still I know that it is not infallible, and there are cases in which the employment of creosote is proper for the disease, but it does not suit the individual. We subsequently gave him carbonate of iron for the anemia, and small doses of the hydrocyanic acid and creosote, which seemed to agree with him. Under this treatment he became much improved, gained strength and colour, but it would have required at least two months longer of the treatment to have cured him. It is probable the discharge from the rectum had continued too long to be entirely removed, and he would still have been kept with a deficient quantity of blood. The treatment, I have said, was imperfect; had he stayed in the hospital I should not have altered the plan of treatment, but continued with the same remedies. He went away a few days since.

—o—
BOOKS.

On Dropsies connected with Suppressed Perspiration and Coagulable Urine. By Jonathan Osborne, M.D., President of the King and Queen's College of Physicians in Ireland, Physician to Sir Patrick Dun's and Mercer's Hospitals, &c., 8vo. Sherwood. London: 1835.

An Address delivered at the First Anniversary Meeting of the Birmingham School of Medicine and Surgery. By James Thomas Law, Chancellor of the Diocese of Lichfield, 8vo. pp. 24. Wrightson and Webb. Birmingham: 1835.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXV.

*General and Partial Chronic Gastritis, or
Indigestion.*

CHRONIC inflammation of the stomach may be either partial or general. When general, the rest of the digestive canal being sound, or nearly so, there is sensibility of the gastric region, and the stomach prevents digestion; in which case one of two things occurs—there is either inappetence and impossibility of swallowing food, which is seen in the highest shade of it, or the patient swallows, but afterwards vomits. In both cases there is inability to bear a sufficient quantity of alimentary matters to sustain nutrition and prevent emaciation of the body. The sensibility varies with individuals; some are exceedingly tender about the pit of the stomach, others not at all so; some are pained by the introduction of slightly irritating matters, but bear mild and fresh alimentary matters: in some mild substances give as much pain as those that are irritating: some experience great pain over the whole chest, or at least in the lower half: these, when they swallow anything irritating, experience the feeling of having received a blow in that spot, or as if the skin were lacerated or burnt—for the sensation is just as referable to the skin of the thorax as to the stomach.

When this inflammation is intense, without, however, proceeding to a febrile degree—for then we should fall into the shade of cholera morbus, and there only needs an untimely administered stimulant to bring it to that shade—when, I say, this inflammation is vivid, the patients experience sensations of lassitude, of fatigue and prostration of the powers; they are of necessity downcast and become thinned; they are thirsty, but, as they are unable to swallow with comfort, they drink but little, and pass scarcely any urine, the consequences of

which are inflammations of the urinary passages, dry skin, deep redness of the apertures of the mucous membranes, sunken eyes, red conjunctiva, red and rigid tongue, with enlarged follicles at its root. Some of these symptoms attach to the preceding shade; but in that the belly is more retracted, there is some evacuation, with diarrhœa, pain, &c.; whereas in that now under consideration there is no evacuation whatever. There is only a step from this disease to the other: it cannot even long remain in this condition, it must either rise to the acute state, or diminish and pass into the intestines, leaving the stomach at liberty to digest, or it must become partial in that organ—and this last is the more frequent case.

The signs that announce the acute stage are easily recognised—fever supervenes, the tongue becomes dry and burning, and ataxic phenomena, or those of cholera morbus, come on.

The signs that announce the generalization of the disease in the digestive canal are heat of skin, tumefaction of the belly, thirst, ability to drink, inappetence, renewal of the absorbing faculty, and typhoid symptoms.

The signs that announce the cessation of the disease in the stomach, and its transfer to the intestines, are the possibility of drinking without pain, tumefaction of the belly, meteorismus, little or no fever (without which sign it would be an acute gastro-enteritis), ingestion of food without pain of the stomach, provided the food is not too exciting, but return of pain when the aliments have passed down into the intestines.

The signs that announce the dissipation of the disease in the stomach, without transfer to the intestines, are the return of health and the re-establishment of the digestion. But there almost always remains a marked irritation in some point of the stomach, in the great sac, the cardia (upper orifice), or the pylorus (lower orifice), and then the signs of partial chronic gastro-enteritis come on. These partial gastritis are perhaps the most interesting, because they are misunderstood by persons who have not made a particular study of the affections of the digestive canal. They have given rise to a host of errors and false assertions, especially when they are of long continuance.

They are ordinarily seen in persons that have had repeated attacks of acute gastritis, who are no longer subject to it, who have not been completely cured, who have relapsed into them by too early stimulation, by mental affections, or by bad regimen, and who have conducted themselves intemperately before the phlegmasia was past. They are common among individuals who have been treated according to the old method, and they frequently end in the neuropathic or nervous state. Once established they may pass through numerous changes: sometimes they augment, extend in the viscus, and render the patient unable to eat: they have recourse to emollients, to which they are forced to adhere until the irritation is calmed in the once sound portion: the appetite then returns, they begin to eat, at first with success, during a few days or weeks, but subsequently they become unable to support nourishment, and are obliged to return to strict diet: and this routine occurs three, four, or more times successively. In this manner they pass the greater part of their lives with this partial gastritis, invading, from time to time, the sound regions of the organ, and then retiring into its former limits, until it rises to the acute condition, which disorganizes the stomach, or a scirrhus degeneration takes place in the part where it predominated, or it passes into other diseases, such as peritonitis, pulmonary consumption, apoplexy, &c. A vast number of individuals live on with this complaint. In it the employment of stimulants in chronic affections of the stomach found a support; they appeared to effect a cure, especially if the patients had been kept on low diet; but relapses took place, of which no account was taken, or which were attributed to different events with which they had no connexion. These phlegmasiæ have made the fortunes of some physicians into whose hands patients fell who had been treated too severely or too conscientiously by physiological physicians, and to whom the latter had been too tardy in allowing food, desiring, as they did, to wait a few days longer; meanwhile a stimulator came in, who worked a cure for a time, if the partial gastritis was not entirely cured, and definitely if it was.

Chronic partial gastritis have three principal points of existence, the cardia, the great sac, and the pylorus. Persons attacked with gastritis of the cardiac orifice suffer pain in deglutition; when the substance enters the stomach it seems to pass through a painful ring, and belchings, and convulsive movements of the stomach, with a burning feeling, supervene. If the disease is not excessive, they are able to ingest, and the ingestion over, they digest; but towards the close of digestion, when the chymic pulp has become somewhat strong, the pain of the cardia recommences, or is felt at the left side of the breast bone, behind the left

breast, or it strikes to the back, beneath the shoulder blade, in the left shoulder. This partial gastritis readily acts upon the heart, if the persons have that organ very sensible or enlarged, and produces palpitations. It is accompanied with a sense of ardor of the pharynx, which is sometimes inflamed and red, and always hotter in this variety than in the others. Patients have in the morning a great flow of acrid and acid saliva, which sometimes injures the teeth; in short, a powerful influence is excited by this phlegmasia over the throat, the salivary glands, the arch of the palate, and the pharynx. There is frequently great dryness of the back of the mouth, so much so that a thick and tenacious mucus collects about it, until the patient cannot clear his throat without having efforts at vomiting. When the disease has arrived at the highest degree it produces vomiting: this, however, is rare, because at such a degree it becomes general in the stomach, and is confounded with general gastritis.

It may end in a state of scirrhus; but it is difficult to ascertain this, and it can only be perceived from certain data, for instance, from a scrofulous disposition manifested by swollen glands of the throat, by a pale complexion and lymphatic constitution, or by taking cognizance of the scrofulous or scirrhus state that may have existed in the nearest relatives of the patient, in which they have sunk. Percussion cannot throw much light upon it, because to render the sound dull the scirrhus must have become enormous, in which case the patient would have perished: besides which the vicinity of the heart would prevent an accurate distinction of the dull sound of the scirrhus.

When inflammation predominates in the great sac, the patients swallow without pain; but after the entrance of the aliments into the stomach, instead of experiencing the pleasing sensation which they do whose great sac is sound, they have a disagreeable feeling. If the aliments are exciting they feel an acrid heat, as if a painful girdle were pressed round the bottom of the chest, and hiccough supervenes. The pain augments towards the close of digestion, as in the preceding case, that is about three hours after the meal, when the chyme is formed and ready to pass the pylorus.

Each of these partial gastritis develops in a manner peculiar to itself. The last named is discovered by a deep seated pain in the region of the spleen, underneath the left hypochondrium: it shoots to the back, but less than the preceding, and does not act on the heart unless it radiates upwards to the cardia. The pain that accompanies it is exceedingly harassing for several hours, and more violent as the aliments are entering into the advanced stage of digestion. The affection is, by ignorant medical men, mistaken for an affection of the spleen, the more as when it has endured for a long time

the spleen becomes swelled, as you may readily imagine from the vascular connexions between it and the stomach. The great sac of that organ being in a continued state of irritation and habitual engorgement, the spleen also becomes irritated and contracts adhesions to it: it is in such instances that we behold hemorrhagies, the material for which is supplied by the spleen, and which are particularly common in gastritis of the great sac: these hemorrhages go by the name of *melæna*.

The progress of this affection varies as the preceding did. If it has been badly treated it may end in ulceration: the spleen is applied to the stomach by the contraction of the cellular tissue that unites the two organs; they become adherent to each other, and the ulceration may go on to the establishment of a communication between them: the inflammation may then extend and pass into the state of general gastritis or gastro-enteritis, in which the patients perish. All these phlegmasiæ tend to the acute stage, and to kill the patients with typhoid symptoms; or else they become thin, and after being for a long time able to eat, they lose all such power, the alteration of the great sac being consummated, and the stomach no longer fit for the execution of its functions, they then die in a state of marasmus, and with horrible vomitings.

Nor is the scirrhus condition of the great sac cognizable, on account of the spleen and colic epiploon, which, when the affection is vivid, contracts and closes along the arch of the colon, where it forms a tumour that may be mistaken for the stomach. Facts of this kind authorize us to say that neither nosological classifications, nor the therapeia can be grounded on the different modes of alteration in the organs: we can only be guided by the seat and the degree of the irritation. In this case, moreover, the pancreas and cellular tissue may become swollen, tumefy, and give rise to mistakes.

Partial gastritis of the pyloric region is, perhaps, more common than the others. The signs of it are as follows: no pain is felt in deglutition, nor towards the heart, nor the back, as in the preceding cases; the ingestion of food is pleasant, and the appetite even sharp; but towards the second or third hour of digestion the mischief begins: the patients have pains of the right hypochondrium, that shoot up to the shoulder, just as those of the cardia do, only that they have no effect on the heart. If the affection is extended to the small arch of the stomach, painful sensations proceed from it to the tonsils, when they resemble the prickings of a lancet. The third hour of digestion arrived, these pains increase; belchings, and sometimes rumination come on: the food is rejected by gushes. At the beginning, all the aliments are not rendered, and in some individuals nothing but glairy mucosities are at first thrown up; but as the disease

augments, the patients reject all food that has not agreed with their stomachs, such as milk, farinaceous, or spoiled and insipid substances; but they retain meat. Other patients do not vomit at all, but suffer considerably during the time the stomach is being emptied. I have opened a woman who died of scirrhus, occupying the whole extent of the pylorus and duodenum, and in whom a small canal was seen passing through the thickness of the lardaceous induration, through which it would have been impossible to transmit a crowquill. This woman had never vomited: no food had ever risen in the month; but she was twenty-four or thirty-six hours in effecting digestion, suffering, meantime, all imaginable tortures—*anxiety*, great *malaise*, burning of the stomach, lancinating pains of the chest, shoulder, and clavicle, simulating mischief of the lungs, and tenderness about the liver, which deceived several medical men, and made them affirm that that organ was disordered. Indeed, it is a common error to attribute pains and dragging sensations of the right shoulder to the liver alone; for they may proceed from the pylorus, the duodenum, and the liver, seeing that the same system of nerves is common to all those parts. I have seen them in the liver in cases of penetrating wounds of that viscus: they are daily seen in duodenitis, without any disease of the liver: and may be even observed in chronically-affected pylorus.

When the disease has continued for a long time, we usually say that vomitings supervene; but previous to that, the inflammation may become generalized, and the patient be led into a typhoid condition that puts an end to him. The disorganization is then laid to the account of the acute state, because it is very difficult in autopsies of acute gastro-enteritis (typhus, putrid, and adynamic fevers, dothientery, &c.), to distinguish what appertains to the chronic state, from that which is the sole effect of acute inflammation. If the patient dies not thus, he undergoes the fate reserved for him in the preceding cases; he becomes emaciated, falls into marasmus, has a host of neuropathic symptoms, and sinks. Occasionally the stomach dilates sufficiently to hold several pails-full of solid and fluid matters, and the patient does not vomit them until his belly is enormously swelled. At other times the patient becomes incapable of vomiting, and he dies in inexpressible torture: this occurs when the great sac is softened, its mucous and muscular membranes destroyed by the inflammation, and the stomach is unable to contract. Sometimes the coats of the stomach give way at the points where they are most softened. Again, the incapability of vomiting may proceed from the absorption of the muscular fibres, and the deposition in their place of scirrhus and lardaceous tissues, in which case there is generalization of an affection that was in

the first instance partial in the organ. Such are the partial chronic inflammations of the stomach.

Scirrhus is more readily ascertained in the pyloric than in the other regions, because it is then more accessible, and less liable to be confounded with the neighbouring organs. If in a patient who has had the symptoms of partial gastritis of the pylorus, we find an ovoid induration behind the right false ribs; if pressure on it is felt in the stomach, provokes nausea, and brings on sympathetic pains; if, at the same time, the liver is confined to its normal position, and does not project beyond the ribs, so as to render any tumefaction of it distinct from that which we are diagnosing, there is a probability, and even a certainty of the existence of scirrhus of the pylorus. I am unwilling to say *complete* certainty, because a lymphatic tumour may exist in the laminae of the cellular tissue surrounding the pylorus; there may be a considerable tubercle situated on the exterior of the stomachal parietes, and produce the same effect on pressure, as an engorgement of the pylorus; the gall-bladder with contained gall-stones may produce the same effect; and lastly, the stomach may be upraised, for not uncommonly there are displacements of the viscera, in persons who have been long sufferers with similar affections. It may, therefore, be sometimes difficult to determine with accuracy the seat of a tumour, and the tissue to which it belongs. For the rest, the remaining probabilities are drawn from the circumstances of which I spoke, when on the subject of scirrhus of the cardia.

Chronic Duodenitis.—I proceed to this phlegmasia before giving the treatment of the preceding, because pretty nearly the same treatment applies to all, and repetitions are thus avoided.

When inflammation predominates in the duodenum, it has considerable resemblance to that of the pylorus: from that, however, it is possible to distinguish it. The pain that is felt towards the close of digestion, and which is common to gastritis of the pylorus and duodenitis is not, in the latter, necessarily accompanied with belchings and tendency to vomiting: there is also a propagation of pain towards the shoulder: the patients have a feeling of heat across the part immediately below the stomach, at the time when the aliments are passing along the duodenum. This heat may be mistaken for that of the stomach; but by attentive examination the error may be avoided: you are aware, that when stimulating aliments have been taken, a sensation of heat is felt in the stomach, which, however, soon passes; but in three or four hours after this heat, without the ingestion of anything in the interim, another heat supervenes, which appears also to be a heat of the stomach, and is accompanied with pains and prickings in the right hypochondrium:—this is peculiar

to duodenitis. In the best health something analogous is experienced at the close of the stomachal digestion: a slight transitory pain is felt, connected with a sensation of cold and yawning: it is this heat, in a morbid degree, that exists when the duodenum is chronically affected.

Duodenitis being prolonged in this state, tumefaction and painfulness of the liver and of the whole right side of the trunk comes on, more particularly recognizable by pressure, and sometimes propagated to the lungs and kidney of the same side. But as the passage of aliments by the duodenum is only transitory, as the secretions in it are copious, and as it possesses great facility of excretion, as the bile flows thither, the mucosities produced by the irritation are evacuated, and the stools are abundant: all this process of secretion and evacuation puts a stop to the suffering, and the patient feels quite well after the termination of digestion: he is neither subject to flatulence, nor risings in the throat, nor to the unceasing uneasiness that is observed in gastritis of the pylorus: he only suffers more or less in the right side during the second part of digestion, after which he is at ease. This irritation would even seem frequently to cause an increase of digestive activity: the patient makes blood, becomes fat and subject to piles. This is also owing to the fact that duodenitis is often the effect of excesses of the table, and especially of the more substantial and stimulating aliments. There are very few men of easy circumstances, and who live as they please, who escape attacks of this affection between their fortieth and fiftieth year, and frequently as early as their thirtieth; notwithstanding which they seem to be in tolerably good health, except that from time to time they have bilious attacks, now and then vomiting, colicky pains, occasional bilious stools, and attacks of jaundice: a tenderness of the right hypochondrium rouses their attention; they apply to medical men, who purge them; the purgatives relieve them, and the disease is palliated. It returns once or twice during the year. Patients of this kind, huge feeders as they are, making as they do double the quantity of blood that is requisite for the regular maintenance of their functions, are in a constant state of hyperemia and hypersarcosis, and become subject to hemorrhages, affections of the kidney, rushes of blood to the head, apoplexy, &c. If to all this there is added—as there frequently is—enlargement of the heart, the latter favours the congestion of blood about the right hypochondrium, and they have pains there, with difficulty of breathing.

This disease is described by authors under a host of different names. It may continue for a long time without causing serious mischief, because the continued evacuations that go on prevent its rapid progress. Still it *does* make progress, and many possibilities

present during its course. The inflammation may become general in the apparatus of digestion, and pass to the state of acute gastro-enteritis, an affection that is then of great import, and seriously implicates the brain: it may not extend, but only predominate in the lower parts of the bowels; a peritonitis may ensue upon it, for this too is one of the not-uncommon chances of gastro-intestinal inflammation. Generally speaking, not more than two or three attacks of acute gastro-enteritis occur in the course of a life: after these attacks, it passes to the chronic condition, not because it is a speciality, but because it is man's nature rarely to pass through frequent onsets of the same acute disease. This is a truth that has not been much suspected, and it constitutes one of the principal dogmata of the physiological doctrine: almost all men who die in the middle period of life are killed by a chronic phlegmasia that has become acute; and such is frequently the fate of persons labouring under chronic duodenitis.

After repeated disturbances of the stomach, repeated hemorrhoidal crises, attacks of vomiting, threatenings of various congestions, seizures of gout or nephritic affection, all more or less completely cured, the scene changes; constipation, invincible constipation, comes on, bile ceases to flow, the liver no longer secretes, becomes altered in structure, fatty, tumefied, or scirrhus: sometimes gall-stones form in the gall-bladder, or in the biliary ducts, and add to the sufferings of the patient, who now begins to lose all colour; the appetite fails; he is no longer moved without the aid of purgatives, into the habit of taking which he falls, and by which he, for some time, prolongs his existence. But at length the effect of purgatives wears out, the fluid secreted by the liver is no longer recognizable as bile, and the organ itself becomes of a waxy whiteness: the belly tumefies; the patient has incessant belchings: the digestion of the food is long and painful, and finally the latter ceases to pass out of the stomach at all. Then comes dropsy of the belly: the swollen liver is pressed on by the effused fluid: the patient never regains health, but lives a varied period in this condition, with a yellow skin, a face-like wax, feeble, dropsical, and languishing, until an effort of acute inflammation is made, and carries him off.

This termination is common among drunkards that have abused spiritous fluids through a long period of time. Such fluids have been regarded as exerting a debilitating power peculiar to themselves: this, however, is not the case, for the debility is preceded by a long continued irritation, and the organs lose the capability of exercising their functions only in consequence of having been irritated. In this case the affection of the liver is almost always consecutive on that of the duodenum, and it becomes fatal

if treatment be not applied before the mucous membrane has been deteriorated in structure, and unfit for action.

—o—

CASES WITH CLINICAL REMARKS, BY DR. ELLIOTSON.

—

Gout—New Remedy—Gastrodynia, and Chronic Gastritis—Sub-Phrenitis—Hepatitis, Autopsy, Softening of the internal Organs.

GOUT.

GENTLEMEN—I have to notice a case today, not generally met with in hospitals—gout, *podagra*, as it is called—but that term would imply a disease affecting the feet, but gout is called so wherever it appears. It has also been termed *arthritis*, which would lead us to suppose the disease was confined to the joints, but we find it in other parts though it generally does affect the joints. *Podagra* is a generic term as applied to the disease; we use it in this case in the correct sense—a disease affecting the feet.

W. P., aged 60, was admitted, Oct. 20; he describes himself as a coachmaker, he is a strong muscular man, and has, generally, enjoyed good health. He represents himself as a man of very moderate habits, never addicted to gin-drinking, but making porter his principal beverage. About fifteen years ago, being in the service of a wine-merchant, he was in the habit of drinking wine, but not immoderately. His father had never been affected with rheumatism, but his mother had been often troubled with that complaint. He had a rheumatic attack three years ago in the feet, and had experienced several slighter attacks since. Last Friday-week he was seized suddenly in bed, between the hours of 10 p. m. and 5 a. m. with pain in the hands and elbows, which extended afterwards to the knees and feet. He has had no medical advice for the complaint, but took some antibilious pills from a chemists shop, which did not give him relief, though they had the effect of opening his bowels. He now complains of pain in the elbows and hands, particularly in the right one, and also in the knees and ankles. The joints of the ring finger of the right hand, the ball of the great toe of the left foot, and the internal malleolus of the right are inflamed and tender on pressure. The pain intermits, being most severe at night; it is of a shooting, darting, gnawing character. His appetite is good, his tongue clear, he has no thirst—bowels not very open; he voids a good quantity of urine, which does not deposit any sediment. Now, I inquired of this patient where the disease originally affected him, and he said, "in the ball of the great toe." I asked him, to ascertain if the disease he was labouring under was gout; the attack came on in the night, the joints became sud-

denly swollen, red, and shining; he had had frequent attacks of the kind before—there could be no doubt he was suffering from gout. Now, gout seldom attacks persons before the age of fifty, but if the causes of it are applied, or if there be a strong hereditary predisposition to it, it may occur even in childhood; I have seen cases which happened before puberty. Now, we do not know whether the disease in this case was hereditary, but his mother had often attacks of rheumatism, was frequently crippled with that disease; she might, however, have been a sufferer from gout. His make was that which we generally find in gouty persons. Now, I do not think that gout is produced by drinking ardent spirits, on the contrary, I believe it frequently prevents it. I have seen cases in point. It is not so, however, with wine; our patient drank wine fifteen years ago, which might in him have been a predisposing cause of the disease, being as he is of the gouty make; particularly if he had hereditary predisposition to it. We immediately gave him a draught containing the colchicum wine half a drachm, one scruple of the carbonate, and one drachm of the sulphate of magnesia every six hours, in some peppermint water, for the benefit of his stomach. On the 21st he was much better, the pain in the affected parts being considerably diminished; the bowels had not been opened by the colchicum—you will find the symptoms sometimes give way before the colchicum produces purging, but they generally give way much better when the bowels are purged. He went on very well, under the treatment, till the 30th of October, when he was attacked with a very acute pain in the left knee. Now, a short time since a Swiss physician sent a letter to me which he had received from a French gentleman at Nantes, which states that the writer had discovered as certain a cure for gout, as quinine is for ague; he offered me a supply—the medicine is in the form of a liniment, which is to be applied to the external surface of the body. It produces no sensible effect, but removes the disease. Now, it could do no harm—it was not to be taken internally—but as I have said, only to be applied to the surface of the body four times a day; I do not know its nature, but it smells like camphor. I did not see any objection to the use of it; I therefore ordered our patient to be rubbed with it on the 30th. On Nov. 2nd, the report states that he feels pretty well, but is not able to stand on the left foot. On the 6th, he had pain in the whole of the left arm, but his feet were relieved. On the 9th, he was free from pain and was shortly afterwards discharged, well. Now, I cannot say, whether this liniment did good or not; gout, we know, does not last forever, and I, therefore, cannot say what effect it might have had in this case; however, I have twenty-four bottles, I believe, of this lini-

ment; any gentleman having the gout, or a friend afflicted with the disease, I shall be happy to give a bottle to, but, I must confess I am rather sceptical on the subject that rubbing a liniment on the surface of the body can have any effect on an attack of acute gout. This case, certainly, cannot speak much in its favour, for the patient had a severe attack a few days after commencing the use of the remedy. The gentleman who sent me the medicine, states that he had just applied it in the case of an ambassador of the Great Powers who was suffering from a severe fit of this disease—he got well in two days. He does not say whether any other medicines were used.

Gastrodynia—Chronic Gastritis.

I proceed now to speak of two cases which illustrate the necessity of opposite plans of treatment where the symptoms are somewhat similar; they are both cases of affection of the stomach. The first case is that of C. M., aged 21, who was admitted, Oct. 20; he is a tall, slim young man, by trade a tailor; has generally enjoyed good health, except about four years ago, when he suffered from an attack of pleurisy, from which he entirely recovered; he states himself as a moderate man not addicted to drink; this is a very rare circumstance indeed among tailors, for they generally are very intemperate. He has led a very sedentary life, working sometimes 18 or 19 hours a day, and seldom taking exercise. This is great confinement you will say, but I can assure you the poor milliner girls work harder and are more confined; they lead most horrid lives; slavery in the West Indies, or the sufferings in our manufacturing counties are really nothing in comparison to what they go through, working often all night and on Sunday, in ill-ventilated crowded rooms, ill-fed, and ill-treated, in order that our fashionable ladies may have their dresses by a certain time. This plan is pursued in most London houses, but there are, I am happy to say, some exceptions; it is hardly possible to conceive any thing so bad as the treatment of these poor milliner girls could exist in a civilized city. To return to the report, about a year ago, a slight pain came on in the side, which made him apprehend a return of the pulmonary disease; he applied to a medical man, who gave him some ointment to apply to the precordial region, and some medicine to take; from this treatment he found relief. Within the last three months the pain in the side has returned and has been gradually getting worse ever since. He has been till lately an out-patient; has taken medicine, applied leeches, lived low, and employed other means, but without much benefit. He has never had rheumatism. He now complains of pain at the inferior region of the chest on the left side, with palpitation of the heart, increased by any mental emotion or bodily

exertion. The pain is sometimes burning, sometimes it seems as though a stream of water passed along the heart from above downwards; the pain, he says, is confined to a spot which might be covered with a crown-piece. The left hypochondrium is not painful or tender on pressure. When a boy he had frequent fainting fits, but of late years only experiences a feeling of faintness without actual deliquium. His breathing is perfectly free, and he has no pain in any part except the region above mentioned. He complains of great weakness and dimness of sight. His appetite has become impaired during the last fortnight; he complains of a burning in the mouth, which is relieved by drinking cold water. He sleeps pretty well, has no unpleasant feeling at the chest, and is not obliged to lie with his head raised. Auscultation detects no morbid sound of the heart, but there is great palpitation. Bowels open, pulse 100, full and regular. Now, from all these symptoms and the history of the case, I had no doubt it was pain in the stomach without inflammation, but attended with great weakness; the heart was affected with great weakness and irritability. In gastrodynia, or when the stomach is in any way affected, the heart is liable to be affected with palpitations; there were no symptoms in this case of any organic disease. The burning heat you will observe was not constant; from the general weakness, from the absence of all inflammation and organic disease of the heart, I gave him tonics; had I given him narcotics, they would have done no good, the weakness was so excessive. I ordered him half-drachm doses of the tinct. ferri muriat. which was increased to two scruples, then to a drachm, and afterwards to four scruples; this last dose appeared to stimulate too much, his head began to ache, he was giddy, and his eyes felt heavy; we then diminished the dose to a drachm, which he took until a few days since, when he was discharged well.

I shall now refer to the case of a young female, who, like the foregoing patient, had pain in the region of the stomach, but a pain of a very different kind. L. M. was admitted on the 27th of October; has been subject for the last nine months to pain in the epigastrium, attended with a sensation of heat in the stomach, extending up the throat; these symptoms were always increased after taking food; she had urgent thirst also; the pain was much augmented by taking warm or stimulating fluids. She had frequent attacks of headach, accompanied with giddiness and dimness of sight; no appetite; her strength has gradually declined. She has menstruated regularly, until the last period. About a fortnight since, the pain began to be more severe, and has continued so to the present time; it is increased by pressure, and is accompanied with a sensation of heat in the stomach and throat;

there is great thirst, tongue red, dry, bowels open, pulse 70, weak. Now you will observe the difference in the two cases: this patient had thirst, the man had none; her pain was increased by stimulants, but a strong stimulant like the tincture ferri muriat. did not affect him. Now, in this girl's case, from the great heat in the throat and stomach, increased by stimulating food, the pain on pressure, and the thirst, there could be no doubt that inflammation existed. Her tongue, too, was red and dry, a general attendant on inflammation; the man's I should have told you was white. It would have been improper to give tonics in this case—it was decidedly of a chronic inflammatory nature. I therefore ordered eight leeches to be applied to the epigastrium, and two minims of hydrocyanic acid every six hours. This medicine may be used in cases like the present, when using the leeches in order to lessen the tendency to spasm. She felt relief from the leeches; up to the 19th of November, the pain had become less and less, but on that day she was taken with a sudden pain in the stomach, evidently spasm. She went out well on the 17th, having been on low diet all the time. This form of chronic gastritis is very common among young women, I know not why. It will be well for you to put the cases together, to see the success of opposite treatment in opposite cases.

Sub-Phrenitis.

I have another case of an inflammatory kind to speak about, requiring the same plan of treatment as the foregoing, only the disease was situated in a different part of the body. S. P., aged 40, was admitted October 30; she is a cook, has had some trouble lately, and has suffered much from great anxiety of mind, which brought on watchfulness, and she passed three nights in succession without sleep. After this she began to complain of some pain in the head, which felt very hot. She had tinnitus aurium and dimness of sight, and her mental faculties became impaired; she had vomiting, her skin was hot, and she had urgent thirst; no appetite; there was great lassitude. On her admission she was sensible, but previously had been violently delirious; she was affected in the same way, two years since, from a similar cause; she has always menstruated regularly. This woman was a cook; now cooks are very subject to pain in the head, arising from their being obliged to be so much near a fire. Cooks, too, in high families suffer much from charcoal, which is frequently used in cooking; the heat makes them thirsty, and a great many of them drink gin, which practice only increases the thirst, and the liability to headach. We do not know that this woman was intemperate, but nothing tends to induce inflammation of the brain and its membranes so much as in-

tense watching; and there was sufficient cause in this case in the fact of her mind being affected—she was immediately bled to sixteen ounces, her head was shaved, and a large blister applied, and we gave her five grains of the pil. hydrarg. three times a-day. I should say she had vomiting, which I suppose was sympathetic. On the 2nd of November, she complained of much tinnitus aurium and dimness of sight, but has no pain in the head; he was delirious last night. On the third, she is much the same as yesterday; on the 10th, the tinnitus aurium has left her, and she has no dimness of sight, but she is troubled with *muscæ volitantes*. She gradually improved to the 24th, when she was discharged well. This case was decidedly inflammatory, and antiphlogistic remedies were proper; perhaps the disease, though styled on the card “pleuritis,” might be properly called sub-phrenitis.

Hepatitis—Softening of the Viscera.

The next case is that of Thomas King, who was admitted Nov. 17. He is a tall thin man, of irregular habits, accustomed to drink wine at one period of his life, sometimes as much as two bottles a-day; has generally enjoyed good health, except occasional attacks of dyspnoea within the last twelve months. He had, however, the appearance of a worn-out man, having a bloated countenance; and the peculiar injected net-work appearance of the minute vessels on the face, which indicates visceral disease. About three weeks since, the difficulty of breathing, and the pain in the chest, became augmented, with wandering pains in the loins and thighs, and general feeling of uneasiness and languor. He however continued in the discharge of his duty, that of a door-porter, until this day, the 17th of November, when he was admitted into the hospital. He now complains of pain, and soreness at the scrobiculus cordis, extending to the right and left hypochondriac regions, but the pain, he says, is most severe in the right; the pain is very much aggravated on pressure, both at the regions above named, and over the whole abdomen, though in a slighter degree. He sometimes feels sick, but does not vomit; the sclerotic coat of the eye has a yellow tinge, which is also observed in a slight degree in the face; the capillary vessels on the cheeks are red, and minutely injected; the bowels open once a-day, little appetite, considerable thirst, tongue moist and furred, bitter taste in the mouth, no sleep, urine very scanty and high coloured; pulse 120, small and fluttering. Now, looking at all these symptoms, it was evidently a case of hepatitis; the whole liver was undoubtedly in a state of great tension; he was so weak we could not bleed him generally; his constitution was worn out—his pulse 120, small and fluttering; we could not be more active than to apply eight leeches to the side,

afterwards a large blister, and give him five grains of the blue pill three times a-day. On the 18th he felt rather easier, from the leeches and blister. On the 20th, he is still troubled with frequent attacks of dyspnoea, but he feels, on the whole, better than on his admission. On the 23rd he was attacked with a violent fit of shivering, to which he says he is subject; his mouth, hands, and feet, have a bluish red and livid appearance, but they felt of the natural temperature; he had no difficulty in breathing: his pulse was very small. Bowels open, the stools of a dirty whitish colour; passed a very restless night; he has frequent attacks of dyspnoea, and often got out of bed, arranged the bed clothes, went to bed again, and displayed other symptoms of restlessness and uneasiness. He died on the following day, whilst on the close-stool.

Autopsy.—The body appeared stout—I should say not exactly so—it would scarcely be called a stout body; there were no signs of emaciation—the neck and head were blue and livid—the hands and feet were of the natural colour; but the veins over the whole surface of the body were distended with blood, presenting an arborescent appearance. On opening the chest, the lungs were found to be healthy, but there was a quantity of serous fluid in the cavities of both pleuræ. The lungs were very much congested, and a few tubercles were found sprinkled in their substance. The heart was large and flabby; there was fluid blood in the right ventricle. The liver was of the ordinary size, but friable, and much congested. Spleen small, friable, and congested; kidneys also congested. The stomach presented a dark livid colour at the cardiac orifice: the same discoloured appearance was observed in the large intestines. The brain was soft, the arachnoid membranes opaque and congested.

Now the appearance given by the veins of this patient was like that presented in bodies that have been dead some months—not opened in this way, twelve hours after death. I presume the vessels lost their power, and the blood was no longer driven on; the same change takes place after death. It appeared that the softening of the different parts took place just before death, and proceeded rapidly. I have seen cases like this before; the pulse is generally quick and low. In these cases putrefaction takes place rapidly. In persons of bad constitutions, the structures of organs sometimes suddenly change during life—congestion appearing, as in this case, after death.

In the next lecture I shall speak of a case of phlebitis resulting from venesection; pus was found in the veins—here are some of the points—but I will speak of it more fully at our next meeting.

A Sketch of the Medical and Statistical History of Epidemic Diseases in Ireland, from 1798 to 1835, with the Method of Prevention and Cure, as practised in the Fever Hospital, Cork Street, Dublin. By William Stoker, M.D., Hon. Fellow of the King and Queen's College of Physicians in Ireland, &c. &c.

(Concluded from page 554.)

WITH respect to the effects of contagion amongst the medical officers to fever hospitals, and their longevity, it may be stated that of the three physicians and surgeon first elected to the Cork-street fever hospital, all are still living, except Dr. Mills, who died of chronic disease long after he had resigned his office in Cork-street, and which he did not hold more than two years; Dr. Barker was attached to the hospital from its beginning, for twenty years; Dr. A. B. Colles, the surgeon, about three years; and myself thirty-one years. All the medical officers, however, attached, or subsequently added to the Cork-street fever hospital, before 1823, or at the first opening for the reception of patients, were attacked more or less severely after the commencement of their duties there, or of their attendance at the houses of the sick poor. It was in this way that Dr. Lee and Dr. Lynch contracted the malignant typhoid disease, of which both died a few weeks after their election; they were the only physicians in the Cork-street fever hospital who died of disease so contracted. Dr. George Hagan died, I think, of chronic disease, which was the result of long-continued exertion, as physician to it, but I believe that effect was aggravated by the baneful influence of a contagious atmosphere in the dwellings of the sick poor. It is moreover very remarkable, and a fact highly instructive on the subject of contagion, that none of the junior physicians have been attacked with the prevailing disease since the unprecedented revolution towards malignity, which occurred in 1823. And, though many have been added, and some of them were transferred to cholera hospitals since 1832, I have not heard of any of those being attacked with symptoms of the epidemic.

From the annual reports of the average number of days each patient remained in the hospital, it appears it was nearly the same in 1831, and in the preceding year, as in the years 1823, 4, 5, when, as may be seen by reference to the reports published of these three years, that the pestilence, with many of the characteristics of that which prevailed in the year 1831, and each succeeding year since. The correspondence, however, between the average mortality in these several years of pestilence, is more remarkable than the length of time the patients remained in the hospital. (See report for the year 1828, page 8.) That mortality, as 307 deaths to 3317 recoveries, or 1 to 10 147-307ths, exceeds

that of any other year from the opening of the hospital, and is nearly the same as happened in the three years, 1823, 4, and 5, when pestilence of the same characteristics as already intimated, prevailed. The average number of admissions into the Cork-street hospital, during the three years 1823, 4, and 5, likewise, as may be seen by the general retrospect at the 8th page of the report of 1828, was nearly the same as in the year 1831. This parallel is of great importance, as will appear more manifest when the symptoms of the epidemic of 1831, even as they are detailed in the report for 1831, are compared with those of the epidemic of 1823, and with those of every succeeding year since. (See 2nd section, page 35.)

The medical report for 1831, quoted in the 2nd section, though it was written avowedly to show that no extraordinary epidemic then prevailed, yet detailed decided symptoms of malignant cholera; of late more properly designated malignant diarrhoea.

In the same report, too may be seen, not only proofs of the existence of the malignity of the epidemic which afterwards ravaged the country so dreadfully, but also the very same arguments which I employed in addressing the committee, to urge them to investigate its nature, and which I did chiefly with a view to induce them to relax those restrictions which retarded immediate admission into the hospital; and owing to which restrictions, I am ready to show, several patients died of malignant cholera, in 1831, 2, 3, and 4; but on the other hand many, in the incipient stage, were saved by speedy admission*.

The average number of admissions into the Cork street hospital, and deaths during the three years, 1823, 4, and 5, as may be seen by consulting the synoptical table at the 8th page of the report for 1828, already referred to, were nearly the same as in the year 1831. That parallel, too, is of great importance in determining the vital question, whether or not the epidemic of 1832, was or was not in the Cork-street hospital in 1831.

The number of patients annually received into the Cork-street fever hospital is daily entered in the registry, but the disease of each patient is not particularized, an omission greatly to be deplored at all times, but especially in the last five years. At all times such statistical information would have been a valuable desideratum to practical physicians, and medical annalists. It would have acquainted them with the most general form of endemic and epidemic disease, in antecedent years, and with the adventitious circumstances and symptoms, which gave to it a designatory epithet, (e. g.) when small-pox, measles, scarlet fever, influenza, cholera, &c. prevailed. This, I suggested to the managing committee of the fever hospital many years ago, and in

* See my comparative view of Cholera. Dublin, January 1832, pp. 16, 17, 18, and 19.

September, 1834, at the instance of the able and, I believe, truly humane chairman of the committee of the House of Commons, (Mr. Warburton, by whom it was proposed when I was examined by him,) that a column should be in the registry, on which the name of the disease should be inserted, opposite that of the patient. This would have prevented in a great measure, or wholly, the public embarrassment that ensued, first, by showing that the epidemic then, though more malignant than at later periods, had occurred much earlier, and, secondly, though previously under a milder degree than in the last five years, in most cases still, that by them studying it much valuable pathological and therapeutical instruction might be derived, and have been applied subsequently with great advantages to the prevention and cure of the more malignant kinds. This injurious omission in the registry of the Cork-street hospital should be immediately rectified, to prevent further evil consequences.

None but those who require gratuitous relief obtain assistance from this institution. The sick person sends notice to the hospital, which is served on one of the physicians on extern duty, who visits the applicant, and gives an order for admission if it is not opposed to any mandate of the managing committee. The order for admission must be signed by the visiting physician, at the residence of the patient. But this regulation, though intended originally for the exclusion of persons not labouring under infectious fevers, yet from the acknowledged difficulty of distinguishing, at least at the commencement of fever, between those produced by contagion and by other exciting causes, has wholly failed in that respect; moreover, it has become a very injurious regulation in many instances, by rejecting those who seek admission at the hospital gate, or lie in the neighbouring streets, who are often ejected from their lodgings for either non-payment or from being thought sources of contagion. Such events I have known to happen every year in the last ten, and many patients to have died neglected and unsheltered, whilst numerous beds in the hospital from which they were turned away were vacant. This abuse should be immediately corrected to prevent further mischief arising from it. Besides, although there is, literally, no limitation in the rules and regulations of the hospital to the admission of the objects of charity, the sufferer living within the Circular-road (i. e.) in Dublin, yet these objects of the charity were wholly lost sight of since malignant cholera prevailed, and in a greater or less degree supervened upon almost all contemporaneous diseases. Whatever appeared to the theory or the alarm of the visitor to be Asiatic cholera, was of course rejected, in obedience to the mandate of the managing committee, and at a time when the hospital was most needed was it most inoperative. This appears to

me a serious abuse, and directly at variance with the principles of the institution. The limitation of admission to patients whose residence is within the Circular-road, also requires to be reconsidered, because it has been fatal to many who were rejected after being removed from the country to seek admission.

The Cork-street fever hospital makes no provision for extern patients. If a dispensary and cheap provision store were connected, great advantages to the poor might be thus derived, more especially in those outbreaks of epidemics, obviously produced by famine, such as occurred in 1817, 18, 19, and 20. During the prevalence of famine and succeeding pestilence in 1817, 18, 19, I saw in Peter's parish very great advantages from supplying the sick at their own houses with the necessities of life, and administering such remedies as actual disease demanded*. The fever hospital does not receive any case which may not come under the head of "febrile disease;" (according to the opinions of the Committee, which unfortunately they have not been able to define with any degree of accuracy, and as may be seen in the preceding part of this sketch,) if the principle of this restriction had been acted upon since 1823, by any one well acquainted with the real state of the case, the worst cases of the sick poor labouring under epidemic and pestilential disease, not being fever, must have been rejected, as happened with respect to malignant cholera, for 1832, 3, and 4.

There also appears from the facts already stated in the second section, to have been a gradual change in disease towards that called Asiatic cholera, produced in my opinion, by changes, however subtle, in the constitution of the air, assisted in their operation by the local miseries of the country.

Generally speaking, potatoes, and potatoes without anything else, are the food of the Irish poor, and even these are most deficient in quantity, and often of a coarse quality. I do not think the full grown potato unfit for food at any season of the year, at least till it has been exhausted by its vegetation, which commences in the spring. The unripe potato, or the exhausted potato, which happen about the same period, I believe to be a common cause of disease among the poor. I am sure the use of them at such periods has been a fruitful cause of disease at all times, but more especially since our epidemics have assumed the characteristics of malignant cholera. That a potato in its perfect state is a wholesome food for the human species as any other article either animal or vegetable, I am induced to believe; but being taken alone by perhaps 7-10ths of the poor of Ireland through the entire year, it predisposes, or actually excites disease,

* See my reports for the years 1820, 1821, and 1823.

especially in the season of its immaturity or decay, to a greater extent than in any other country so dieted. The greater prevalence of cholera, common and malignant, and of other diseases of debility, is chiefly referable, I think, to that cause. And whether the greater prevalence of such pestilential disease in Ireland, is rightly to be considered the cause of dropsy to a greater extent amongst all ages in Ireland than in England, or should be traced back to the causes of these pestilential diseases themselves, it cannot be denied that whilst dropsy in England is confined either to the intemperate or the aged, numbers of young persons, living entirely on potatoes, and without the means either of over-eating or drunkenness, the frequent cause of dropsy, sink every day, by that mortal disease, in Ireland, into their graves*.

In the famine of 1817, 18, and 19, the poor were driven to the use of all green vegetables they found within their reach, and the succeeding epidemic, greatly enhanced as it had been by that circumstance, assumed forms of peculiar virulence; particularly diarrhoea, and other forms of bowel complaints, from the use of some of them more noxious than the rest. A mixture of fresh animal and vegetable food in generous allowance, appears now, I think, by the universal consent of medical practitioners, and writers of reports on the epidemics of this country, to have been not only preventive but curative, when judiciously administered. In the epidemic of the last four years, fruits, and some vegetables, especially the potato in its exhausted or unripe state have been found to predispose to an attack, and were often deemed the chief causes of fatal ones. The most general causes of actual disease amongst the poor of Ireland, is, I believe, want of sufficient sustenance and of remunerative labour; likewise the use of noxious ingesta, whether bad food, or ardent spirits, to which they often resort, to blunt the feelings of hunger and of misery.

The extensive use of ardent spirits still prevails, but happily seems on the decrease. Lunacy and idiocy are often the result of the abuse of spirituous liquors; but the disease denominated *Delirium Tremens*, the well known consequence of that abuse, is becoming more frequent. Spirituous liquors seem, though they very frequently are not, the sole cause, as the quantity of ardent spirits drank is sometimes small in proportion to the quantity of beer or porter. *Delirium tremens* is often fatal, sometimes terminating in paralysis, of body, or mind, or of both. Whether these cases of idiocy or palsy, are directly or indirectly produced by the use of ardent and fermented liquors, I cannot say;

but the habitual excess which leads to them is very generally incurable. Fermented liquors, even the abuse of them, are certainly less pernicious than ardent spirits; but a substitution for both in the beverage of the poor must be I think, a great desideratum in ameliorating the condition of the Irish poor. I have no doubt that ardent spirits are frequently resorted to by the poor, (according to their own well-known phrase) "to drown grief," or in other words to gain, by inebriation, a respite from the painful sense of the want of everything. I do not doubt that it would also much conduce to the health of the poorer classes, if beer could be substituted for spirits; but until the condition of the poor shall be ameliorated, I fear, for the reasons already intimated, that the possibility of such substitution would be very doubtful.

Although I think that the cold and damp of the climate, and the ardent character of the Irish, along with the wretchedness of the poorer classes, have produced a common and excessive use of ardent spirits, which it would be extremely difficult to check, yet I feel certain that the production of any cheering and nutritious beverage, within the means of the poor, would be most desirable; and that very many who now leave their reason, with their pence in the whiskey shop, would gladly mend their ways, if they could bring home a comfortable supper for themselves and their families. But, I greatly fear that it would be scarcely possible to reduce the price of tea, coffee, or cocoa, so very low as to bring it within the reach of the Irish poor. It is, therefore, with infinite pleasure I suggest a preparation of dandelion, which, in appearance and flavour, is very like coffee, and which might be produced so cheaply that even the most wretched could easily procure it. Of the benefit of the root of the *red-stemmed dandelion* (*Taraxacum*), prepared as it may be very cheaply for the poor, in the greatest abundance in autumn, to provide against the periodical famine of the succeeding year, I can now speak with full confidence, from very extensive experience of its use under the form of coffee, both for preventing and curing many other stomach and bowel complaints besides cholera, which in the seasons of famine are the harbingers of dropsy and marasmus, to an extent unknown in England, or any other country, where such constant misery and frequent visitations of famine do not occur. I may add that I have been recently informed by some eminent physicians that they have employed dandelion coffee in their own cases with the greatest benefit, and have since more fully proved its efficacy amongst their patients. Further particulars of its preparation may be seen in my *Pathological Observations*, part 2, Dublin, 1829; and part 3, 1830. As to its general utility both in diet and medicine, see Dr. Paris's *Pharmacologia*.

The want of work causes much more

* See my observations on dropsy. Part I, Dublin, 1823, page 48 to 108; also Part II, Dublin, 1829, page 209 to 238.

mental and corporeal disease amongst the poor operatives of Dublin, than the manner or materials in which they have been employed. This has been always evident in the rise and growth of all our epidemical and pestilential diseases, and found to be almost as deleterious as even deficiency of food, or of other necessities of life, which are besides intimately connected with dearth of employment. The famine fever A. D. 1827, was clearly* the result of want of employment, the prevailing sickness being then obviously excited by it, especially amongst the English and Scotch operatives, who were forced of necessity to work on the roads for food; and who in leaving their looms and other modes of manufacture, relinquished with them all their previous hopes and habits. The rise and growth of pestilence in Dublin for the last thirty-seven years is, I believe, mainly attributable to similar causes. There is, I am sure, much less ground of complaint upon the subject of filth and imperfection of the pavement of lanes, stagnant water, &c., than the public has been generally led to suppose.

Neither clergy nor laity of any persuasion have interfered, unsought for, with the patients during their illness, in the Cork-street hospital; neither have theological or controversial tracts, of any description been circulated there of late years; but the want of having chaplains of the leading persuasions and sects, attached to the institution is a great injury to it, inasmuch that I have often seen the tranquillity of patients destroyed, and their recovery materially interrupted, by not having their own clergyman, at times when they anxiously wished for him. This want should be provided for. I stated this orally to some of the managing committee many years ago, but it is still in existence.

All the medical officers are graduates of the colleges after which they are respectively denominated; but, I believe, they are not all licentiates. The medical duty is extern and intern, (i. e.) visiting the applicants at their abodes, to see if they are proper objects for admission, and attending the patients when received into the wards of the hospital. Of the physicians, three attend at the dwellings of the applicants, and three attend at the wards of the hospital. The intern and extern duty is alternated every two months in succession. The hours of attendance is 11 A. M. and 7 P. M., and, I think, sufficient time is generally allowed. I am not aware of any complaint having been made by the poor to the controlling power. A nurse-tender is always in attendance, and administers the medicines to the patients; the apothecary dispenses them.

For how many years after the opening of the Cork-street fever hospital, no salary was allowed to the physicians, I cannot recollect; but a salary has since been given to them. At first it was 20*l.* per annum. This, how-

ever, has since been gradually increased to 100*l.* late Irish currency, and has been the maximum, at which it has stood for several years. This is the only allowance to the physicians. The Grand Jury has never exercised any control, neither does it appear that its members have any; but I believe such a control is vested in the government; through whom, and by whose sufferance alone the presentments pass for those parliamentary grants, on which the institution mainly depends for support.

The medical and all other officers are appointed by the committee, consisting of the trustees and six other persons, elected annually by the managers themselves. When a vacancy occurs it is made known through the newspapers. It would be highly desirable that these appointments should be subject to the approval of the Lord Lieutenant and College of Physicians. It is necessary that the candidate physicians should be Doctors, or Bachelors of Medicine; a diploma from the College of Surgeons is required from the surgeon; a diploma from a School of Midwifery is required from the accoucheur; and letters testimonial from the Apothecaries' Hall, from the apothecaries or dispensers. There is not any limitation as to the officers' age—there is not any retiring allowance.

The Cork-street hospital, one of the largest fever hospitals perhaps in Europe, if under a more liberal direction, might, with the greatest advantage to the immediate objects of the institution, be made a most effective school for medical and surgical instruction. The extreme wretchedness and poverty of the district in which the hospital is situated, always produce in its wards an abundant source of every variety of the prevailing epidemic. Few are the cases which would not afford abundant subject matter for an instructive clinical lecture; and, I may add, that very many are the cases to be met with in that hospital, for which a more watchful and intelligent attendant than the common hospital nurse-tender must be required. Nor would the advantage to the immediate objects of the institution, by the admission of students, stop even here; for it is my conviction that the pupils would give to the physicians, as in the Meath hospital, Stevens's, Mercer's, Sir P. Dunn's, very much more than an equivalent for the salary they now receive. Thus a very important saving would be effected, or, in other words, a new fund would be created for extending the benefits of the institution. I have repeatedly sought those advantages, for my pupils and for the hospital, as well as on my own account, but have been as often refused*.

* When lecturing on the practice of physic, in some of the private schools of Dublin, (e. g.) in the Peter-street or Eccles-street School, the advantage to my pupils

The patients in the Cork-street fever hospital are invited by placards through the wards to prefer any complaint for ill-treatment by the medical officers, to the managing committee, or monthly visitors; but I am not aware of any such complaint having been made; neither am I of any secret influence or circumstances to deter them from giving such information.

The medical officers of the Cork-street hospital are not bound to give vaccine matter gratis; I think a dispensary for such a purpose might be advantageously attached to such hospitals, which should contain two or three beds for patients, or accidents requiring particular attention. The medical officer has not been in the habit of inoculating for the small-pox. My opinion of vaccination, and how far preventive of small-pox, is the same which I expressed in my observations on the varioloid disease, published, Dublin, A.D. 1820; and as it accorded very generally with the candid and intelligent reports of several respectable medical observers, published at that time throughout the kingdom, I shall quote it here in the same words, viz. — "Small-pox appears after vaccination in but small proportion to the number that enjoy perfect immunity from that antidote, and even in this small proportion the supervening disease is so mitigated as in general to cause slight sickness only, on the 7th or 9th day, and very rarely consecutive fever." My objects, however, in that pamphlet were to show, by experiments I had made, that cases of eruption after vaccination, which had been confounded with chicken-pock, swine-pock, &c., were genuine cases of small-pox; an opinion which has since been fully corroborated. Small-pox after vaccination having been urgent in many cases, some of them fatal, the efficacy of the antidote was questioned by the families who had thus suffered. I believe the confidence of the public in the efficacy of vaccination is rather increasing than diminishing. But as to how far it would be advisable to prevent those who still doubt its efficacy, from inoculating with small-pox, I do not feel authorised to express an opinion.

Wine is given on the order of the physicians. For the last five years the quantity ordered by me has been very small, owing to my substitution of dandelion coffee for it. This may be seen by comparing my diet tables in corresponding months in which I employed dandelion coffee in lieu of wine. Not only was the mortality diminished in my wards in those months when dandelion coffee was prepared according to my directions, and whilst it was given in lieu of wine, but it was relished by the patients. Moreover, as stated

in my publications 1829, 30, and 32, it relieved nausea and vomiting after all other means had failed*.

There is a regular dietary divided into low, middle, and full diet, but there is none for particular diseases; the managing committee having, in this instance also, acted under the fallacious opinion that contagious fever was the only disease to be found in the wards of the Cork-street hospital; a fallacy which they, as well as the physicians, might have detected. Some extra comforts, however, are allowed, such as a wet nurse, or arrow-root, which I suggested for the new-born children of mothers affected with bad fevers, or pestilential disease, the suck in such cases being either deficient or depraved, and I had often found it to be fatal to the infant. But there are other extra comforts, however, which I also suggested, such as tea, dandelion coffee, and sugar, which are not allowed; and I have known numerous cases in which they were urgently required.

There are monthly reports as to admissions, discharges, deaths, which are printed, and known to the public in general. But the minutes even on medical subjects, have been kept secret from the physicians; a circumstance which must be at all times detrimental to the reports. Moreover these reports are subjected to alterations by the managing committee, who are obviously disqualified for such censorship. The clergy, of all persuasions, medical men, gentry, &c. might be formed into a Board of Health in every district. They would, I think, be qualified and willing to assist in a more minute investigation of the wants of the poor.

I believe the future support of the Cork street fever hospital will depend, as it ought chiefly, on good faith in keeping the original rules and regulations, as on that the private bequests and public grants have been hitherto made.

In concluding this hurried sketch, I feel most sensibly how very much its numerous defects need apology. The importance of the subject, whilst claiming the highest order of medical knowledge, I could scarcely hope my utmost efforts adequate to its perfect development; and in attempting to compress it within the narrow limits prescribed to papers offered to the College of Physicians, or to the sections of the British Association, it must have been further injured. Still the kind indulgence which this view of a subject so generally interesting requires, will not, I am persuaded, be denied to an attempt, however imperfect, to discharge a bounden duty.

Although I may fail as to other objects, perhaps too ambitiously entertained, yet if I shall realise the leading one, namely, parliamentary investigation, in the course of the

of attending the wards of the fever hospital would have been great. The injury done by the refusal was, therefore, very material.

* See third part of my Pathology, Dublin, 1830; and Comparative View of Dublin, July, 1832.

next session, of the subject of medical statistics in Ireland, and of the mischievous abuses arising out of the neglect of them, I shall consider any labours of mine fully remunerated.

Hitherto my memorials to the Irish government, the College of Physicians, and the managing committee of the fever hospital and house of recovery, Cork-street, were dictated by my anxious desire for rigorous and impartial investigation of the questions to which they referred. On all those occasions that investigation was denied, and public injury and private injustice were allowed to escape the test of truth. To bring them to that test has led me to persevere, and, relying on its efficacy, I do not despair of ultimate success.

P.S.—The appendix notified in drawing up this sketch is postponed, in expectation of freer access to the annals of the Cork street hospital, from which it will be taken, and of the replies also of a category for rural districts, with which, at their request, I furnished the Commissioners of Poor Law Inquiry. In the meantime, my dissertation on the Institutes of Medicine, published in 1826, and my Comparative View, January, 1832, will be substituted for that appendix; both these publications being intimately connected with the leading subjects of this sketch.



LECTURES ON THE DISEASES OF THE NERVOUS CENTRES,

NOW BEING DELIVERED IN PARIS.

BY M. ANDRAL.

LECTURE I.



Generalities of the Nervous System.

THE study of diseases of the nervous system is difficult on account of the multitude of facts which we are obliged to collect, because they are scattered in various works and periodicals. There is at present no work which embraces a full account of nervous disorders. The difficulty of this study is further augmented by the diversity of opinions deduced by each observer from the facts which he studies, and from which he is to make his selection. In commencing this laborious study, we find the science is really in state altogether provisional. It is still very far from being so completed as that of the diseases of the other systems.

We shall commence some details, which will demonstrate more clearly what we have advanced. In all diseases, we are necessarily obliged to study the causes, the symptoms, the anatomical lesions, of which the symptoms are often the effect, and, lastly, the treatment. But when we investigate the diseases of the nervous system, we find cir-

cumstances which make the study of these diseases, of their symptoms, of their anatomical characters, of their treatment, offer difficulties which are not encountered in the diseases of other organs.

We shall pass in review the different orders of difficulties, and first consider the causes.

Here, as in other maladies, we find the causes. 1st. In the internal organs. 2nd. In the reciprocal action of the organs on each other. 3rd. In the mode of the performance and the nature of the functions of the diseased organ. The nervous system is not influenced in a very remarkable manner by external agents. There is not, for example, any comparison between its relation and those of the respiratory system or digestive apparatus.

The second order of causes shews itself in the most powerful manner, in the production of the diseases of the nervous system. Every organ disordered in its action, reacts upon the nerves. There is no disease in which they are not affected; sometimes in a secondary manner, but deserving to be placed in the first order. It is then that certain primitive states of the liver, lungs, and intestines are afterwards accompanied by nervous phenomena, which give them a special form.

As to the third order of causes, all organs in the nature and performance of their functions, are subject to diseases.

But to the nervous system belong the intellectual and moral phenomena, which are a peculiar cause of numerous perturbations; and as the intellectual and moral phenomena are not the same in different individuals, and according to the different states of society, the different ages, professions, religious ideas, &c., &c., it will follow, that there will be great difference in the aspect of the same diseases. In cities, for example, and in hospitals, individuals exert their brains very differently, and, as the ideas of every age have their peculiarities, as for example, the religious ideas carried to excess in the middle ages, have gradually given place to ideas of a different kind, we should not be surprised that certain maladies which were developed under the influence of such fanaticism, are not observed in our times; thus, the epidemic, St. Vitus's dance, religious extacies, &c. are not now prevalent, whilst there are others of common occurrence in these days; and which were not then observed.

Symptoms.—Here we meet with formidable difficulties, which do not present in diseases of the other organs. 1. Our senses cannot be employed here, for example, as in diseases of the chest and abdomen, in which the diagnosis can be drawn with so much precision. We frequently can only recognize the diseases of the nervous system by induction; the relative difficulty is then very great.

2. Premature theories have thrown other

difficulties in the study of these diseases. The theory which refers all the affections of this system to augmentation or diminution of excitability, is inadmissible. There are numerous and various other disorders of a perversion of function.

3. Different lesions may produce similar symptoms; thus the same phenomena often manifest themselves in two individuals, one attacked with congestion, the other with cerebral anemia, in such a manner, that it is more by the antecedent symptoms, than by those present, that we establish a diagnosis. On the contrary, there are lesions of the same kind which cause different symptoms; and this may depend on the seat, on the slow or rapid formation of the lesion, on the extent &c.: thus the diseases would vary according as the cerebellum, brain, &c. &c., were affected.

The brain may be considered as a multi-form tissue, formed by the aggregation of organs having different functions: but the localizations which some attempt to make are premature. I do not believe that they can know the precise state of intelligence, of speech, of motion, of feeling, &c. This question remains to be determined, and in admitting this diversity of organs, it must be understood, that there is a chain which forms the unity of a vital principle.

All the rest of these difficulties may be appreciated and submitted to these laws; but there is another which must not be neglected, for it is a fact; I mean *idiosyncrasy*, by which the same action produces in two individuals such different results. This idiosyncrasy exerts an important influence in diseases of the nervous system.

4. But this is not all. Sympathetic reaction becomes, in the subject of which we are investigating the source of enormous difficulties. We know not sometimes if the symptoms we observe, have their origin in the nervous system, or in some other organ; for example in the cerebral fever of infants, &c.

The symptoms of diseases of the nervous centres present remarkable differences according to the different ages; so that if two good observers, one placed in an hospital for adults and aged persons, the other in an hospital for children, their monographs will be quite different, and, nevertheless, the facts will be perfectly correct: because they have observed individuals of different ages.

These are very great difficulties, which do not exist in diseases of the other organs.

When we have determined the nature and the seat of a disease, all is not finished; we must study the anatomical lesions. Pathological anatomy has, undoubtedly, within a few years, discovered alterations in the nervous centres, which were previously unknown. Thus *ramollissement* was scarcely glanced at by Morgagni and has been the object of the valuable researches of MM. Lallemand, Rostan, &c.

Cases in which after death we discover by the scalpel some changes are, common in the other organs, but this is directly the reverse in the nervous system; the cases in which lesions are met with, are very rare, and this fact will appear a paradox, if we only pay attention to three or four diseases observed in hospitals; for it often happens that we pass over slight nervous affections and do not notice except the most formidable, which derange sensibility, intelligence, &c. In these last cases we sometimes fail to discover any morbid appearance, or those that we detect have no relation with the phenomena observed. Is it to be said that they do not exist? It is true, that nothing can be seen; but it is probable that there is organic lesion, since there is deranged action.

We have not yet arrived at the end of our anatomical discoveries: let us wait with hope. It has been said, some years since, that disorders of the understanding were connected with alterations of the grey substance of the brain. The fact has been contested, but may be perhaps hereafter definitely established in science.

There are other researches to be made besides those which we owe to the scalpel. Thus, various disorders may be connected with the difference of chemical elements, dependant on different circumstances. Thus in these latter times, it is found that from infancy to old age, there is a diminution of the aqueous element, and an augmentation of the albuminous. Phosphorus is at its maximum of quantity in adults, &c.; but these questions are for future investigators, for the facts are not as yet perfectly established.

We have seen the difficulties relative to the study of the causes, symptoms, and anatomical characters; there are others which are furnished by the treatment. In all others, when signs of irritation or of excitation are observed, we deduce the just conclusion, that there is phlogosis, requiring the use of antiphlogistics; but it is different in the nervous system, in many cases. Thus, signs of excitement exist; you bleed, and the symptoms become aggravated, according as the individual is debilitated; and these morbid states, which are exasperated by bleeding, may increase with other diseases, that may require sanguineous evacuations, however contra-indicated; for the state of the brain after the bleeding will be more serious than the inflammation of the lungs, intestines, or even the peritoneum. By a remarkable coincidence, the condition that will not require bleeding, is often occasioned by the too abundant loss of blood; and it will disappear under the influence of chalybeates and antispasmodics, and harmony is restored by these means, where bleeding would certainly have increased the disorder.

There are other means from which we may derive very great advantage, such as

those that act on the imagination. Certain diseases are produced in all cases by the influence of a strong passion, or of an energetic faith, &c.; and these diseases may be cured by means analogous to those that have produced them. I must remark, that not only simple nervousness, but diseases tending to become organic, have yielded to this treatment. In this way, cures are effected by a strong faith, from Mesmer's tub, and the juggling of magnetism, to the infinitesimal fractions of homœopathy, which have a great effect on the imagination: from this fact immense advantage may be drawn.

It has been observed, that in proportion to the advance of the sciences, they have always met at a certain elevation. When we investigate diseases of the nervous system, we perceive the possibility of enlightening this study by other branches of knowledge.

It is necessary to have recourse to the most minute dissections: thus, a certain number of diseases of the cerebellum produce blindness in children. What relations have these with the optic nerves? It is this that we have to investigate. It is true that there is a connexion between the cerebellum and the corpora quadrigemina by the cerebellic process ad testes, from which the second or ophthalmic pair of nerves take their origin.

In certain cases the motion has continued in the inferior extremities, though the half was almost completely interrupted, a small, very thin thread being the only means of communication between the two ends, or there may be only a small quantity of liquid interposed; and it is asked, how then is it that the functions were not totally suspended? Comparative anatomy comes to our assistance, and shews us, that in cases in which the spinal marrow is no longer an organ of feeling, it is of a very small volume. It has moreover shewn, in certain fishes, that the nerves separated from the marrow by a liquid, are nevertheless able to transmit motion.

To these splendid results experimental physiology has added its facts, and has rendered immense service to pathology. It is thus that certain paralyses of motion in the face, the feeling remaining uninjured, and vice versâ, have been well explained by Sir Charles Bell; and M. Magendie has put beyond doubt that the lesions of the posterior cords of the marrow give rise to lesions of feeling, and those of the anterior cords to disorders of motion.

There have been cases where a man became blind, deaf, and lost his sense of smell, without any alteration in the specific senses, the eye, ear, or nasal fossæ, nor in the optic, acoustic, or olfactory nerves, &c., and these facts are among those on which pathological anatomy can give no information. It has, however, been proved, at the present time, that the fifth pair is, in man, accessory to the functions of sight, smell, and, hearing;

and in certain species of animals comparative anatomy shews us this same pair, as the principal nerve of these specific senses.

Guided by these facts, it has been tried in certain cases of alteration of the sight, hearing, and smell, if there was not some lesion of the fifth pair, and sometimes it was only to be found in them.

But pathology restores what it receives; if it receives light from other sciences, it is in itself a fruitful source whence the anatomist and physiologist may draw to elucidate a multitude of the points of their sciences. It may, then, with truth be said, that according as the sciences advance they meet at a certain eminence.

The order that we shall follow will be the same we usually lay down. Thus we should study—

1. Diseases of the nervous centres.
2. Disease of the cords.
3. Those of the great sympathetic.

The other subdivisions shall be also the same.

Lesions of circulation.

Lesions of secretion (few in number, however, we shall have to treat here of cerebral œdema).

Lesions of augmented nutrition.

Lesions of diminished nutrition.

Lesions of perverted nutrition.

Lesions of innervation, that is to say, of functions (intelligence, feeling, motion).

Lesions of innervation of organic functions (digestion, generation, secretions, &c.).

Lesions of the power which directs and regulates in the economy the laws of organism, and which produce vital power (hypersthenic, asthenic, and ataxic states).

In this course we shall study the facts that have been demonstrated, others that are not demonstrated, but which are very similar. We shall not reject facts supposed to be false and inexact, as many such have been re-established. We shall examine theories, as these supply facts, but we shall reject all hypotheses. We shall steer a middle course between excessive scepticism, which destroys everything, and too much credulity; though it must be admitted that scepticism is necessary to science, and to those who cultivate it.

—o—

Foreign Medicine.

Dental Exostosis. By M. Lobstein.

THE exostosis of the teeth are very small tumours, sometimes situated at their neck, and sometimes at their root. Those, which I have had an opportunity of examining, did not exceed the size of a large pin's head. They were perfectly round, and of a very hard consistence. Those which were situated at the neck, or at the base of the crown, had almost the nature of enamel, being

equally polished and shining. Those placed at the root of the molar teeth, were usually found at the angle of bifurcation.

Dental *osteophytes* constitute little osseous processes, resembling stalactites, and adhering to the membrane which lines the cavity of the tooth. They are generally met with in the cavity of the *molares*; but they have been found in the *incisores* of the ox; and are sometimes free (like the almond in its shell), and sometimes intimately adherent to the walls of the cavity. The fact that these osseous concretions are always accompanied by morbid alterations of the teeth in which they are found (such as caries and decay), has led M. Duval to the opinion that they result from an effort of nature to replace that which had been destroyed by disease.—*Gazette Medicale*.

Pelvic Exostosis. By Dr. Rognetta.

In 1820, M. J. Cloquet presented to the Society of the Faculty of Medicine at Paris, an anatomical preparation exhibiting an exostosis of the posterior surface of the pubis. This exostosis, after having pierced the anterior wall of the bladder, projected into that organ. Had its existence been ascertained during life, it might have been mistaken for a calculus in the bladder.

M. Duret, a naval surgeon at Brest, has been obliged to practise the Cæsarian operation on a woman who could not be delivered on account of a considerable exostosis in the hollow of the sacrum, entirely filling up the inferior outlet of the pelvis. It is remarkable that seven years previously this woman had been delivered through the natural passages.

In the museum of the Faculty of Paris, may be seen a preparation analogous to the case last mentioned. I am not certain, indeed, whether it is not the pelvis of the woman operated on by M. Duret. It has the appearance of a little amorphous rock, evidently parasitical, resembling pretty closely a piece of pumice stone, of the size of an infant's head at the full term, and attached as it were accidentally to the concave face of the sacrum. This case closely resembles one related by M. Nagele. Ruleau has also given us the history of an exostosis the size of a nut, growing at the inferior part of the pelvis, in consequence of a fall

upon the buttocks five years before. This exostosis projected into the vagina, and was an obstacle to natural delivery. I might produce fifty cases of a similar description. As to *extra-pelvic* exostosis, I have met with only one well authenticated example—a case related by Professor Regnoli.—*Gazette Medicale*.

Destruction of Sequestra by Sulphuric Acid.

In the year 1816, a patient presented himself at the Clinic of M. Delpech, suffering under necrosis of the tibia, almost the whole extent of which was occupied by a sequestrum. Caustic potash was applied to the superior part of the leg, so as to produce a circular eschar. This was detached, leaving the bone exposed. A pledget of lint, dipped in diluted sulphuric acid, was immediately applied, and renewed every five or six hours. Two or three dressings rendered the bone sufficiently soft to be destroyed with common dressing forceps. When this had been accomplished, two other applications of the caustic potash and the sulphuric acid were successively made, below the former, so that the sequestrum was exposed to the extent of five or six inches in length, and an inch and a half in breadth, and could be extracted with the greatest facility. It formed almost two-thirds of the cylinder, being more than six inches long. During the whole process, the patient might be said to feel no pain, and left the hospital perfectly cured, a month after he had entered it.—*Gazette Medicale*.

Angina Pectoris. By Dr. Gintrac.

Believing that the explanations hitherto given of the nature and seat of *Angina Pectoris*, cannot stand the ordeal of a rigorous examination, Dr. Gintrac gives one, which he conceives approaches more nearly to the truth. The situation of the pain, and the force of the pulsations, had already led him, in 1825, to imagine that the disease is an expression of suffering originating in the aorta. Since that period, attentive consideration, and numerous researches, have confirmed him in his opinion. In examining the cases which have been collected, he has generally found an alteration, either of the aorta itself, or of the semi-lunar valve or of the cardiac vessels. These parts, though

apparently different, nevertheless form, by their development, only one organ, of which one point or another may be affected, without the difference in the seat of this affection sensibly modifying the consequences of the lesion.

The author declares he has collected thirty cases of this disease, in which the aorta was either thickened or dilated, or cartilaginous or ossified; while he has met with only ten or twelve, in which that organ had undergone no alteration; and among the latter cases, he adds, there was not one which bore the character of a case incontestably belonging to the disease, or of an observation accurately made, with the necessary attention and detail. Allowing that among the cases of inflammation of the aorta, published by authors, there are some, in which the characteristic pain of angina pectoris has not been mentioned, Dr. Gintac thinks this depends on the fact, that the history of inflammation in the large vascular trunks has been scarcely sketched; and that greater part of the observations have been made on patients labouring at the same time under other affections.—*Gazette Médicale*.

The Influence of Day and Night upon Births.
By M. Guiette.

Struck with the influence which day and night exert on the functions of the economy, M. Guiette imagined it might extend to the birth of children. He therefore ascertained, at the *Maternité* of Brussels, what had been the number of births for every hour of the day, during a period of eleven years; namely, from 1812 to 1822. Let us attend to the results of this table. If we divide the twenty-four hours into four periods of six hours each, we shall find the births thus disposed:—

	Day.	Night.
From one to six o'clock,	674	799
From six to twelve o'clock,	616	693
	1290	1492

Here we see that considerably more infants are born during the night than during the day. It is from eleven o'clock at night to two o'clock in the morning, that the greatest number are born. Thus, the first of these hours numbers two hundred and

twenty-four births, and the second, one hundred and seventy-two. It must, however, be remarked (and the observation has not escaped our author), that only four of these 2782 births are said to have occurred at midnight. There is an evident inexactitude, arising, no doubt, from the births which took place at that hour having been set down to the previous or the following one, in order to avoid all dispute as to the legal day of the birth. At the same time, the hour of noon furnished only forty-eight births, and during three years, it did not furnish one; while the hour which (after that) gave the smallest number, still reckoned eighty-eight. It would be very curious to ascertain whether the *sage-femmes* on duty at mid-day did not neglect their patients a little, at the provincial hour of dinner.

The author, who was connected with the *Maternité* from 1827 to 1834, collected, during those eight years, other cases, of which the accuracy is still more to be relied on. The following was the distribution of 2766 births:—

	Day.	Night.
From one to six o'clock	632	750
From six to twelve o'clock	677	707
	1309	1457

Here, also, we perceive it is the night that furnishes the greatest number of births; and during the night the period from one to six o'clock in the morning. The period which furnishes the least, on the other hand, is from one to six o'clock in the evening. The most favourable hours are eleven at night, and two or three in the morning; the numbers for them being 134, 132, and 140. The hours least burdened are seven in the morning, and three in the afternoon; their numbers being 102 and 97. Noon and midnight present higher numbers. Combining the two tables we find that out of 5548 births, 2949 belong to the night, and 2599 to the day.—*Gazette Médicale*.

Absence of the Anus.

M. Velpeau was called to a child which came into the world without any trace of the anus. The surgeon made an incision at the place where the anus should have been, and in the direction of the rectum,

and arrived at a cavity whence he felt assured he saw meconium escape. Nevertheless, the symptoms continued unmitigated, and the patient died. On examination the *cul-de-sac* of the rectum was found on a level with the fundus of the bladder, but without having any communication with that organ. The bladder filled the whole pelvis, so that it was almost inevitably wounded in the operation.—*Gazette Medicale*.

—
Anasarca following Scarlatina. By M. Baudelocque.

Antonie Deschamps, aged twelve years, of a lymphatic temperament, felt towards the middle of September, pain in the throat, with general febrile uneasiness. These symptoms were accompanied for two or three days with redness of the skin of the inferior extremities. He did not keep his bed, but was obliged to give up his employment, which, however, he resumed at the end of a few days. Towards the 25th, after the patient had experienced various alterations of heat and cold (from being obliged to descend into a cellar, several times a day) the face became infiltrated, and œdema attacked the scrotum and limbs, so that on the 29th (the day of his admission into the *Hopital des Enfants Malades*) the infiltration was general. A small quantity of blood was taken from the arm.

The following was his state next day: considerable swelling of the face, and especially of the eye-lids, which the patient could not open without difficulty. The thoracic and abdominal walls as well as the inferior limbs were infiltrated. The scrotum nearly equalled the size of a full-grown fetus. The upper extremities were untouched. The skin was dry and moderately warm. In many parts it was the seat of desquamation in large spots. Pulse 112, small and regular. Respiration but little accelerated, and its murmur strong and clear. Auscultation revealed no unusual sound in the region of the heart; tongue moist; no effusion into the peritoneal cavity: bowels opened daily; his understanding was perfect, and all the sensorial functions were unaffected.

Dropsy of the subcutaneous cellular tissue, occupied in this case a very great ex-

tent. But in the state to which medical science has now advanced, we ought not to confine ourselves to stating the existence of anasarca; we ought to ascend through it to the morbid affection from which it has sprung. The heart and its appendages appeared altogether free from alteration; for auscultation and percussion gave only negative signs. Thus the central organ of the circulation had nothing to do with the dropsy with which this patient was affected. Beside, the progress of the œdema had not been such as we observe in affections of the heart; for it was not in the lower extremities that the swelling began. We ought then to direct our attention to the organs which secrete the urine; since they sometimes undergo an alteration of which general dropsy is an attendant.

The examination of the urine was conducted with great care. It was submitted to the action of heat, and was tested with nitric acid, but without detecting the smallest quantity of albumen. It was not then in the kidneys that we could find the cause of the dropsy. The desquamation of the skin led us to suspect an antecedent scarlatina; and although the patient at first denied it, we afterwards came to the knowledge of the facts stated in the commencement of the case.

On the 2nd of November the fever had disappeared; the pulse had fallen to eighty; the temperature of the skin was natural. The infiltration occupied the same extent as before. The urine was scanty, cloudy, and of a brownish tint, throwing down a sediment of the same colour. The digestive apparatus was in good order. Two basins of broth were allowed, and one of decoction of dog-grass, with two grains of nitrate of potash. The quantity of the latter was increased next day to fifteen grains, and on the following to twenty-four. The urine became a little more abundant and limpid. Pulse seventy-two. On the 5th, thirty-six grains of nitre were given; and the quantity of urine was double that at the commencement. Pulse fifty-six.

On the 6th, in addition to the previous remedies, decoction of *cahinea* was administered, in the dose of a drachm in an ounce of liquid. This treatment was continued till the 12th, increasing the dose of *cahinea* to

two drachms. The anasarca underwent but very slight diminution, although the urinary secretion was a little augmented. On the 12th, the employment of vapour baths was commenced, and the nitre and *cahinca* were suspended. From the second bath a notable amelioration took place; the scrotum became less in volume, as did also the eyelids. Six other vapour baths, taken from the 13th to the 18th of October, made the anasarca completely disappear. The patient quitted the hospital entirely cured on the 25th.

In this case the bleeding from the arm practised at the beginning triumphed over the fever, but caused no modification in the anasarca. The same may be said of the nitrate of potash and dog-grass. To these was then added *cahinca*, which, though taken at first with great repugnance, was afterwards administered regularly, but appeared to be without any effect, physiological or therapeutic. The action of the vapour baths, on the other hand, was very manifest. Seven or eight baths were sufficient to triumph completely over the disease.—*Lancette Francaise*.

—o—

ON THE NEW POOR-LAW ACT.

Mr. VERRAL having been requested to bring this subject before the Western Medical Association, began by reading the letter which appeared in our last Journal, and then proceeded as follows:—

GENTLEMEN—Before I proceed with the history of the conduct of the guardians towards their medical officers, it seems necessary that I should guard myself against a charge of inconsistency, which may, perhaps, be urged against me. It will be said, that while I have described the contention to be as eager as if it were for a prize of great value, I have affirmed the existing ratio of remuneration to be a pittance utterly unworthy of a struggle. Now, it happens, that both these statements are true, and that there is not in them any real ground for the charge of inconsistency. The real question, unhappily with many a practitioner is, not whether he shall be fairly compensated for his services, but whether, without the proffered compensation, wretched as it may be, he be able to obtain the means of decently supporting his family. Such is the alternative offered to the medical practitioner. The sum which his parish practice may procure him, may, perhaps, be less than one shilling a head upon the numbers he is called on to

attend, (a calculation which I know to be no unfair one:)—it may be a most wretched compensation for his medicines, his time, and his talents—for his many sleepless nights and toilsome days—for his exertions, both of mind and body—for the fatigues, the anxieties, and the dangers which he may be compelled to undergo. But, strip him of that poor sum, of that paltry and insulting compensation, strip him of that, and the balance that remains to him may be found inadequate to his support. Nor is the loss of this miserable stipend the only evil which he has to dread. He knows that if another, by under-bidding him, obtain the parish attendance of his district, he will be placed in a situation to interfere with the rest of his practice, and to win from him others, and perhaps, more important patients. The knowledge of this fact, and it is well known to those cunning gentlemen who are accustomed to the management of parish affairs, is frequently used to the injury of the medical practitioner, and I know has been held out in terrorem by many of the boards of guardians. A man will do in his official what he would be ashamed of doing in his private capacity; and to save a few pence in their respective poor-rates, the guardians have frequently insulted the parish surgeon by employing against him such an ungenerous threat. I have said, I trust, enough to prove that the wretchedness of the compensation must not be held to be inconsistent with the struggle that is made to obtain it.

One more observation and I have done with this part of my subject. I have heard it said by the farmers, that as they are suffering from the low rate of agricultural produce, that they cannot afford to pay the doctor as they ought, and that he must, therefore, be compelled to bear a share of their privations. Now, this, Sirs, is a matter that they ought to settle with their landlords. The poor-law question is one altogether between their landlords and themselves. The higher the poor-rates, the lower should be their rents. If they have cause to complain, then to these landlords let their complaints be made; but let them not seek to compensate their own losses by the robbery, (I can call it by no better name) of those who, labouring in their service, are worthy of their hire. They will say that they force no one to accept their illiberal terms; I maintain, that although there is no physical, there is a moral compulsion acting on the mind of the practitioner; that the wretched alternative between a shamefully inadequate salary and absolute ruin, compels him frequently to submit to the acceptance of terms derogatory to his talents, humiliating to his pride, and injurious to his interests; and I maintain, again, that the law which insists upon the possession of talent and the cultivation of knowledge, and which enforces a vast sacrifice of time and of money for the development of the one, and the ac-

quisition of the other, ought in common justice to protect us afterwards against the cruel oppressions at present inflicted upon us. We must not be consigned over to the tender mercies of the boards of guardians; we must not be held by these hard taskmasters in an almost Egyptian bondage; they must be deprived of the arbitrary power which they at present exercise over our fortunes; our practice must not be regulated, our interests unsettled, our prospects blasted, by their ignorant or illiberal decisions. There are, doubtless, amongst them many well-informed, and liberal, and kind-hearted men, but taking them as a body they know us not; they cannot appreciate our merits, they cannot estimate our services, they cannot even calculate our necessary expenses; but having heard the standing joke of elevenpence three-farthings profit out of a shilling, they chuckle over it as a witty answer to all our complaints, and make their calculations upon it as if they religiously believed it to be true. Ruinous to the profession it must be, ruinous alike to its peace, to its interests, and its character, if it be left thus to the mercy of those who care so little for its prosperity, and know so little of its worth. I have said nothing of the temptation which these miserable stipends must hold out for the substitution of cheap and inefficient medicines, for the more efficient and more expensive ones. I would fain hope there are few of us capable of so acting; but the people of England should know, that if any one be capable of so cruel and disgraceful a part, it is he who dishonourably supplants his more respectable neighbour by under-bidding him in his contract.

I proceed now to describe the mode in which the new law has been administered in relation to the medical officers, and in the first place I have to complain of the board of commissioners themselves, whose business it is to issue orders and regulations for the guidance of the board of guardians. Many very excellent orders these gentlemen have certainly issued: they had indeed a voluminous and well digested body of reports by which to direct their conduct. But those reports gave them no information, or none that was worthy of the name, upon the subject of medical attendance. The commissioners of inquiry, indeed, do not appear to have directed their attention to this part of the question, so that the board of commissioners seem to have entered on the subject without any information whatsoever, and playing, as it were, a game of happy-go-lucky, they instituted a series of experiments considerably similar in their effect to those which are said to have been made by certain unruly urchins upon a pondful of unfortunate frogs; and in the words of the latter we may fairly address them, saying, "Gentlemen, it may be sport to you, but it is death to us." The consequence of all

this has been, that instead of one consistent set of rules, the agreements are directed to be made with us in every possible variety of form. In one place every thing—medicine, surgery, midwifery, non-parishioners, &c. &c., were all to be included under one general contract; in another place, midwifery was to form an extra charge; in another, broken bones, or perhaps, surgery in general, or small-pox, or vaccination, were admitted as exceptions, while in many districts, the attendance of non-parishioners was to be contracted for at so much a head. All this "confusion worse confounded" is exceedingly improper, and towards the profession operates very unfairly, and that most especially in those places where nothing, or where the fewest things are allowed to form exceptions to the contract; for so ignorant, so uncalculating, or so unreasonable are the majority of the boards of guardians, that they either allow nothing for the things included, or not near so much as they would produce if admitted among the exceptions.

The first specific case that I shall mention to you, is that of the union of which I happened to be elected one of the guardians. The first proceeding was a considerate and very proper one, the union being divided into such districts as accommodated the medical gentlemen who had been accustomed to attend the different parishes. The next thing was to advertise for sealed proposals for the attendance of the several districts, including, as the commissioners had directed, every thing in one general contract. I must just observe, that in the course of the previous conversation, it was admitted by the guardians of the two principal parishes, one of whom was the chairman himself, that their medical attendants had hitherto been underpaid. Well, on the appointed day, the tenders were examined. No proposals had been sent in, save by those who, if I may be allowed the expression, were the natural attendants of the districts. The offers in the aggregate amounted to about 360*l.*, which the guardians, without calculation, refused at once to give. A repetition of the advertisement was then resolved upon, and, in the mean time the different parishes were required to produce returns of the sums paid to their medical attendants during the preceding three years. The appointed day again arrived, but with it there came no new tenders. There was no opposition on the part of their medical neighbours to those gentlemen who had previously offered themselves. Foiled in this attempt, the guardians exclaimed that there was a combination of the medical men in order to raise their prices. A combination! In the name of Heaven, gentlemen, what were they themselves? what but a combination of landlords and tenants, armed with irresponsible power, and resolved upon having their work done without paying for it? A combination,

taking advantage of the power which the law had unhappily given them, and acting in despite of reason, in despite of justice, in despite of the scriptural command, which says, "Thou shalt not muzzle the ox that treadeth out the corn." But being foiled in this attempt to excite opposition in the neighbourhood, they next examined the parish returns, which showed an aggregate annual expenditure of 311*l*. But then observe, first, that two of the surgeons had been confessedly underpaid; by this, I do not mean that any had been paid enough, for I know there was not one of them who had not been grossly injured in that respect—I mean then, that there were two of them especially underpaid, and that openly stated by the guardians of the parishes they attended. Secondly, that although the parish officers could make returns of their own medical payments, they could make no calculation of the sums which other parishes had paid for the attendance of paupers of theirs residing within this district. I was, however, prepared with such a calculation, which, though considerably imperfect, showed an average expense of more than 40*l*. This added to 311*l*, made 351*l*, and 9*l* more, shared between the two underpaid gentlemen, would have made up the exact 360*l*, which the tenders had amounted to. In vain, however, did I call on my brother guardians to adopt this fair and reasonable calculation. The majority of them would listen to nothing I had to say, and there was amongst them a young magistrate, a man of education, of considerable wealth, of gentlemanly manners—one from whom better things might have been expected, who was, if possible, more unbending, more unreasonable, more illiberal than the rest. I was accordingly completely cried down. They would listen to no calculations. They would have nothing to do with the non-parishioners; 300*l*. would be an ample remuneration for the whole, and at 300*l*. a year they stuck, threatening to advertise for one person to attend the whole of the union for that sum—for one person to attend 4000 paupers, midwifery, surgery, and all; and these scattered over a district sixteen miles in length. In vain did I expose the preposterousness of such an attempt, and the impossibility of carrying it into execution. In vain did I show, that the necessary expenses of assistants, horses, rents, &c. &c., would devour the whole sum, leaving nothing to the contractor himself. They would listen to nothing, or to nothing but the pleadings of their own pockets; and at length, after a deal of stormy discussion, the matter was settled for a time, by dividing 311*l*. among the respective medical attendants; thus allowing nothing for the attendance of non-parishioners, and not an additional halfpenny for those gentlemen who, as they confessed themselves, had not been sufficiently paid; and is it for this, gentlemen, that you have

undertaken the duties of a painful and laborious profession? Is it for this you have submitted to the drudgery of a five years' apprenticeship, and now at a distance from your homes and from your friends, are passing the better, or at least the gayer portion of your days in those deep and unceasing studies which alone will enable you to fulfil your future destinations in life? "Verily I say unto you ye shall have your reward;" but if these things are to continue, that reward must be looked for, not in the good things of this world, but in the silent approbation of your own hearts—in the proud consciousness of a conscientious discharge of your duties; and if this species of reward afford but a slender support to those who may hereafter look to you as their only stay, you must even compose yourself with the idea, that while you may after this life, be allowed, like Lazarus, to repose on Abraham's bosom, you will never be amongst the rich men who are to become inheritors of a less agreeable abode.

The next case that I have to relate, is that of a gentleman who was deprived of a parish which his father and he had attended for fifty years, and in which he had the earnest good wishes, and could have had the suffrages also of every inhabitant, whether rich or poor. A district was formed by the union of this parish with another of somewhat less extent. The gentleman I allude to, well knowing that he was likely to be opposed, and unwilling to let a stranger introduce himself into the midst of his practice, actually proposed to undertake the district for a sum scarcely exceeding that which he had been accustomed to receive for his own single parish. A young man who had just established himself in the neighbourhood, put in a much lower tender. The guardians of the larger parish warmly supported their former medical attendant, whose character was known and appreciated also by several other members of the board. But his opponent had his supporters also, some in consequence of the lowliness of the offer, and some from religious feelings, he and they being mutually dissenters. The question being put to the vote, the suffrages were found equal, but a gentleman who had just purchased an estate in the neighbourhood, who was a magistrate of but a few hours' standing, who never till that day had been qualified to sit at that board as an ex-officio guardian, and who was utterly unacquainted with all the parties and utterly ignorant of the merits of the case, most improperly, as I venture to think, gave his casting vote in favour of the lowest tender. The gentleman, thus deprived of a portion of his long-established practice, is one who is far from being rich—a husband—the father of a large family, whom a long course of incessant labour has scarcely enabled him to educate and support.

Nor is this the only loss which the same

gentleman has been doomed to sustain. In the town in which he resides he has for many years attended one, and on alternate years a second large and populous parish. So entirely have his services been approved of, that in the former parish, not more than eight months ago, an attempt having been made to supersede him, he was supported and triumphantly reappointed by a very large majority of the inhabitants; and in the latter it is not two years since he was solicited by an unanimous vote of the vestry to continue for a second year, though out of the usual course, that attendance which had given such universal satisfaction. The first thing the new poor law did was to set aside all these old arrangements. The town was divided into two districts, and one of these he was in great hope of obtaining. Will it be believed that politics here stepped in and deprived him of an appointment to which his character gave him so fair a claim. He had at the last election supported the two present liberal members of that, his native borough. Now there are residing in the town four ex-officio guardians in the shape of tory magistrates, and their number, added to a few of their creatures, whom they had been enabled to get elected as guardians, gives to their political party a majority of one. These gentlemen give themselves and the board little trouble when the ordinary business, that of relieving the poor, is the only order of the day, but when any of the officers are to be elected, or any job to be carried, they take good care to be present, even though they be dragged from their sick beds for the purpose. In this manner it was that the gentleman in question was thrown out, and a politician of the right stamp appointed in his stead.

I shall now just mention a case which will show you one evil arising from the arbitrary power at present vested in the guardians, and for brevity's sake I shall designate by the letters A. and B. two practitioners residing in two country towns exactly four miles apart. There are five adjoining or intervening parishes, three of which had long been attached to the practice of A., and two to that of B. The guardians threw the whole five into one district, and A., who obtained the contract, was thus forced into the midst of the practice of B., and became the attendant of persons some of whom lived four miles from his own house, and within a quarter of a mile from his opponent's very door. Thus were sown the seeds of strife between two persons who had hitherto been on friendly terms; and I would ask what possible right a board of guardians could have so to interfere with the interests of any practitioner, and so by their arbitrary decision to disturb the natural order of things? The sequel of this tale I relate with some degree of pride, in which I feel you will sympathize with me when I tell you that the successful competitor has

handsomely resigned to his neighbour the two parishes in question, and that he who has performed so worthy a part is connected with myself in the three characters of a successor, a pupil, and a friend.

Among the enormities which have resulted from the present system I have farther to mention the case of two respectable practitioners (partners) who have actually lost eleven parishes, the whole of which they have attended for a great many years, and have thus suffered an abatement of their professional income of some hundred pounds a year, because they would not degrade themselves by taking them upon such low terms as would have been destructive to their own interests and derogatory to the character of the profession. I grieve to add, that on terms so low, and so disgraceful, these and other parishes have been taken by two persons, also partners, the elder of whom is a man of considerable wealth, who is about to retire from practice, and who, we may reasonably presume, by thus adding to the nominal amount of his receipts, expects to obtain a higher price from the future purchaser of his share.

Had I searched farther a-field, I might doubtless have found many more, and many worse cases than these. In Kent, for instance, and in some other counties, the experiment has been tried of hiring one person to attend the whole of an extensive union, and a pretty scene of confusion has doubtless been produced by the experiment; and blessedly the sick poor must be attended to under such a system. But I have said enough to convince you—to convince any man of common sense and common liberality, of the gross impropriety and injustice of the present state of things. What, sirs, because the resident professional men refuse to give their time, to exercise their talents, to labour by night and by day, in sunshine and in storm, "in summer's heat and winter's cold," because they refuse to do this—not without an adequate compensation (for who expects to be adequately paid for the attendance of paupers?) but because they refuse to do it for a compensation most shamefully and notoriously inadequate, for a sum scarcely equal, in comparative amount, to the wages of a common mechanic; because they refuse to do it—not from uncharitable feelings towards the poor themselves, who often regard their regular medical attendant as almost their only friend, but because they refuse to do it to save the pockets of the mighty landlord, of the overgrown farmer, of the wealthy tradesman; and a combination of these men to meet, under the authority of the law, and by a tyrannical exercise of the almost despotic power which is vested in their hands, be permitted to disturb their peace, to blast their prospects, and deprive them of those advantages which their long years of study and attention, of labour and

successful practice, have fairly earned? Aye, and I may ask, are the poor themselves to be exposed to the misery of so violent and unnatural a change? Gentlemen, to youth and health I would grant but little relief; towards idleness and profligacy I would exercise but little forbearance; but in infirmity and in old age, "in the time of sickness and in the hour of death," I would not deprive the unfortunate sufferer of the consolation which the visits of a medical friend are so capable of bestowing; and in spite of the sneers of the cynic, and the contemptuous colourings of the satirist, I will fearlessly assert that there are thousands of our professional brethren who know how delightful it is to have the blessings of the poor; who know that second only to the power of restoring health is the charitable office of softening the terrors of despondency, of stilling the writhings of pain, of pouring oil on the ruffled waters of death. Again, then, I ask, are the suffering poor to be exposed to the misery of this violent and unnatural change. Are they to be subjected to the attendance, or, probably, the non-attendance, of an utter stranger? of one not connected with them by any ties of neighbourhood, of kindness, or of confidence? of one who has undertaken the task from the merest mercenary motives? who is, perhaps, not inspired with the most humane, as he certainly has not been actuated by the most honourable feelings, and who will, of course, be as sparing as possible, both of his time and of his trouble, aye, and of his drugs also; for that, we know is no inconsiderable part of the question, if we mean to administer such as the diseases of our patients require?

I burn with indignation, gentlemen, while I am asking these questions; I burn with indignation while I answer that such powers are placed in the hands of the guardians, and that they are often tyrannous enough, and illiberal enough, to exercise them in so oppressive a manner; nor is the indignation lessened, when I compare the wretched compensation awarded to the medical officer, with the salaries which are paid to some of the other officers of the unions. Take the chaplain, for instance, with his sixty or seventy pounds a year, for the performance of duties which demand not one tenth part of the time, one twentieth part of the labour, one fiftieth part of the study, or one hundredth part of the talent, which are demanded from the medical attendant of any one or two of the districts. Look too at the auditor, who has his fifteen or sixteen guineas for an occasional examination of the accounts, a task which may occupy him some six or eight days in the year, and which sum would be grudgingly given to the medical attendant of a parish containing two or three hundred paupers. But I could keep on thus till midnight, and then should have but half enumerated the evils of

which we have to complain. It were better therefore that I here conclude my address, with the length of which I fear you are already wearied. But before I conclude, permit me especially to express my feelings towards you, the younger portion of my hearers; the inheritors of our cares and of our toils, the inheritors of more than our knowledge, and I trust of more than our success.

Gentlemen, I address you not with the tongue of falsehood, nor do I wish to win you by the voice of flattery; but when I look on you, and the hundreds like you, who throng the schools of this mighty metropolis, when I see you, with all the ardour of youth, and all the sedateness of age, pursuing those abstruse and multifarious studies which alone will fit you for the stations you are about to fill; and, that ye may pursue those studies with effect, flying from, or sparingly sharing, the amusements and dissipations of this gay town; when I see you, hour by hour, listening with respectful attention to the lessons of your teachers, consuming the midnight oil in the perusal of works by which the information you have received in the day may be confirmed and enlarged; and digging after wisdom and knowledge in those dark and dreary mines in which they are best to be found—in those abodes of death, and disease, and decay, from which others would turn with disgust; and, when I compare with the lives you are leading, the idleness, the pleasures, the frivolities, the useless employments, the unintellectual pursuits of other young men of your age, your equals or superiors in fortune, your equals or superiors in rank; when I make, I say, a comparison so highly advantageous to yourselves, I cannot but ask, and feel assured, that your answer will be NO, whether you will tamely submit to return from hence to your homes, to have your destinies decided, your fortunes made or marred, your labours unrequited, and your talents set at nought, by men, in knowledge, in intellect, in industry, and in usefulness, so infinitely inferior to yourselves. Yet so it must be, if the poor law remain unaltered, and be administered as it now is. But the comparison I have drawn, has lighted up a bright ray of hope to break through the darkness that at present overclouds us. If, as we are told by Lord Bacon, "Knowledge is power," by whom, if not by yourselves, shall that power be possessed which knowledge has to bestow? Versed in all the sciences that bear upon your adopted profession, acquainted with the wonderful mechanism of the human frame, and accustomed to compare it with those of the other inhabitants of the earth, from the minutest insect, up to the elephant and the whale; instructed in the principles and operations of chemistry, with all its astounding results; conversant with the properties of metals and of the great

mineral kingdom, and accustomed to wield their powers, and to convert them to the use of man; versed in the history, the characters, and the virtues of plants, "from the cedar of Lebanon, to the pellitory that groweth against the wall;" daring even to dive into the most secret operations of the Creator, to investigate the mysteries of mind, to scan its powers, to watch its eccentricities, and to correct its aberrations—so enlightened, so endowed, what body of men is there to compete with yourselves in knowledge? Is it the clergy, with their Greek and Hebrew, their algebra and mathematics—learning which, adding, as they know, but little or nothing to their capability of performing their duties, is at first acquired from compulsion, and afterwards forgotten from neglect. Is it the lawyers, with their musty parchments, their legal fictions, their authorized chicanery, their studies of forms and precedents, or even with their occasional eloquence, the chief merit of which is "to make the worst appear the better side?" or is it the lordling, or the squire, or the gentleman farmer—those whose studies are the pedigree of a horse, or the staunchness of a pointer; whose only philosophical knowledge lies in the science of percussion, and whose only chemical compound is a mixture of sulphur and carbon, with nitrate of potass?

Gentlemen, if knowledge be power, the power of redressing your wrongs is placed in your own hands. But to obtain this desirable result, you must be firm, energetic, and, above all, united among yourselves. Be as the profession has hitherto been—a rope of sand—and you must continue to crouch beneath the iron rod of your oppressors; but let firmness and energy, and union of purpose, be superadded to your expansion of intellect, and your accumulation of knowledge, and you may then obtain the glory of gaining for your profession a more honourable rank, for yourselves a more independent station, and for your toils a more adequate reward.

—o—

The London Medical AND Surgical Journal.

Saturday, December 5th, 1835.

THE POOR LAW AMENDMENT ACT.

WHENEVER men whose opinions on most subjects are widely different or diametrically opposed, concur in an unqualified denunciation of any one thing, it is fair to infer that the thing in question is obviously and abominably bad. Now this is the case with respect to

the medical provisions of the new poor law act. With the general bearings of that piece of legislation we have nothing to do here; but in as far as it relates to the poor, who are the suffering party, and to the medical profession, who are the insulted party, we join most sincerely in the general expression of execration against this most flagitious and contemptible act. It is astonishing with what unanimity the medical profession in town and country exclaim against its cruelty, its insolence, and its absurdity. Every medical journal cries out against it; the *Lancet* pricks it, the *Lizard* gapes at it, and we pound it. For our own part we are overwhelmed with letters from the most respectable and experienced practitioners in all parts of his Majesty's dominions, all echoing the universal feeling: nay we are convinced that the dark recesses of Pall Mall, of Lincoln's Inn, and of Black-friars, are filled with stifled murmurs, and that if it were not for the fear of seeming to sympathize in anything with the mass of the profession, the *noodles*, the *curs*, and the *hags* would break forth in a "horrid harmony" against a measure so vile, that not even they can derive any advantage from it! What is the upshot of the matter? Long walks, neglect, and death, for the pauper—long rides, ridicule, and *half-a-crown per annum* for the doctor! We do hope that in this instance, if in no other, the profession will lay aside its wonted supineness. Every medical man who lends his aid directly or indirectly to this most iniquitous affair, is an enemy to his profession and to humanity; his conduct admits of no extenuation—selfishness offers no inducement, for there is nothing to be gained; poverty offers no excuse, for the half-crown pittance is insufficient to ward off starvation. Will nothing open the eyes of the profession? Do they not see that the tameness with which they have submitted to the tyranny of the medical oligarchs, is now beginning to

be perceived and acted on in every quarter? Do they not see that the *gratuitous humbug* which they have themselves assisted in setting up, is continually made a precedent for proposals, the parallel of which no one in his senses would ever dream of making to any class of men, professional or non-professional?

We should like to see how a baker would look, if he were asked to supply the paupers of a parish with loaves all the year round at half-a-crown a head; he would throw a loaf at the head of him who made the proposal, and he would do quite right. We adjure our brethren to consider this affair seriously. The indignities that have been heaped upon the medical profession have now arrived at their acme; the "heads of the profession" have long looked with scorn upon what they deem the tail of the profession—the *subordinates* to wit; the public have long since taken the hint, and regarded the said tail as a thing to be trodden on; and now, to crown all, the legislature has offered to the general practitioners of England terms which, setting aside all honorary considerations, and putting the matter on the common footing of *price for value received*, are beneath the acceptance of the lowest tradesman or the rudest mechanic! Let the general practitioners of England show on this occasion, that their long subservien-
cy to the medical oligarchs, (of which we pray their forgiveness for saying they ought to be most heartily ashamed) has not utterly divested them of the common feelings of Englishmen. Let them refuse, as one man, to have anything to do with the administration of this infamous system. But let not the poor suffer; let the practitioners of every district manage amongst them to attend the poor gratuitously, till the inhuman act has been fairly defeated by their joint and continued opposition, and let the gentry of every district co-operate with the medical men in this

good and charitable work. What! Do we, after all that we have said, advocate the *gratuitous humbug*? No, indeed! There is all the difference in the world between the man who, actuated by real humanity, gives his services to the poor who need them, and the man who, to answer his own selfish purposes, puts on the mask of charity, and, compromising both the interests and the honour of his profession, suffers himself to be made a dispensary drudge in the hope of one day reaping a golden reward for his hypocrisy.

—o—

DEATH CAUSED BY MORRISON'S PILLS.

WE learn from last week's papers, that another votary has fallen prostrate at the shrine of Hygeia—in other words, that another unfortunate individual has been killed by Morrison's pills. We wonder much that the wise men of the poor-law amendment act do not make application to Doctor Morrison; that gentleman, being a philanthropist, would, no doubt, supply them with a few thousand tons of pills at a very moderate rate, and if every pauper in England had a hatful of them for his weekly allowance, all further medical arrangements would be rendered superfluous, and, indeed, the whole system of the poor-laws might be embraced in an act "for the sufficient supply of universal vegetable pills to the poor of these realms, and for their decent interment when dead of the same."

—o—

BENEVOLENT DISPENSARY FOR THE RELIEF OF THE POOR AFFLICTED WITH FISTULA, PILES, AND OTHER DISEASES OF THE RECTUM, ALDERSGATE STREET.

OUR readers will perceive, by an advertisement in this day's number, that a dispensary is opened for the relief of a class of painful diseases which have been too long consigned to unprincipled empirics, because the profession had, until a recent period, neglected them.

The folly of excluding such diseases from the domain of pathology reflects no great credit on our hospital and dispensary functionaries. It is only within a recent period

that a worthy contemporary of ours lauded Mr. Martin Van Butchell, of advertising celebrity, as infinitely superior to the whole profession in the treatment of the maladies to which we have alluded! But every medical practitioner must hail the establishment of an institution having the surgical aid of a gentleman, a distinguished member of the profession, who has for many years devoted his whole attention to the investigation of the nature and cure of diseases of the rectum. Mr. Salmon has cultivated the study of rectal diseases more assiduously than any of his contemporaries. He has a collection of specimens of rectal and pelvic diseases more extensive than any in Europe. This has naturally excited the ire of certain hospital monopolists against that gentleman; but the voice of the profession is in his favour, and we know that he is consulted from all parts of the kingdom, and has patients sent him not only from distant parts of this empire, but that he has been frequently called to France. Many of his preparations or specimens of disease may be seen at the new dispensary, and every member of the profession may inspect them on Tuesdays and Fridays, from one to two o'clock.

We enter into this statement for the purpose of attracting the attention of our readers to a valuable charity—one long wanted—and with the hope that they will send their poor patients to an institution in which they may obtain relief. In saying this we do not mean in the slightest degree to detract from the merits of our brethren, but as the advocates of humanity, we must state, *coute qui coute*, that there are not, in our opinion, five surgeons in this kingdom who understand diseases of the rectum, or whom we should consult, were we unfortunately the subject of such infirmities. The truth is, until Mr. Salmon and Dr. O'Beirne published their respective works, the subject was greatly neglected, and we do not name preceding or subsequent writers, because their productions were superficial and most imperfect. The reason of this was, that in autopsies the rectum was scarcely ever examined, nor is it even now in this country, in one case in a thousand, by the great majority of surgeons. It therefore follows, they can know nothing about them.

We feel convinced that in bringing the new charity before our readers, we shall benefit the poor afflicted with diseases, which it is intended to alleviate or remove.

—o—

MEDICO-BOTANICAL SOCIETY.

AFTER a congratulatory address was presented to Earl Stanhope, President of the Society, on his return to this country from his tour through Europe, Dr. Sigmond pronounced the following eulogium on the late Professor Burnett:—

I have now a melancholy task to fulfil, and which must materially check the feelings of pleasure usually attendant on the first meeting of the session. I have to announce the death of a highly gifted and much loved individual, who filled, with honour to himself and to the Society, the distinguished office of Professor of Botany—Gilbert Burnett. His career has been untimely stopped by the inscrutable decree of that Great Being, whose beauteous works he studied with delight, whose wondrous paths he loved to trace. At a period of life when few have even commenced the search of knowledge, he had, by his devotion to the sacred cause of science and of truth, attained the respect and the esteem of the wise and the good; and he was recognized as a highly accomplished teacher, from whose stores the rich harvest might safely and surely be diffused.

His delivering of a course of lectures at the Royal Institution of Great Britain, first attracted attention, as well from the classic learning, as from the intimate acquaintance with the nature and uses of the vegetable kingdom, that they displayed; the high character which he obtained, and the promise of future excellence which he thus held forth, induced our illustrious president to consider him as the fittest person to fill the then vacant office of professor of botany to this institution, and which he held to the day of his death. The zeal and ardour with which he attached himself to our interests, realised the sanguine expectation of our president, and called forth repeated testimonials of your approbation, and they are the best proof that you appreciated his labours. When a chair was established in the King's College, for a professor of botany, he was the individual upon whom, after mature deliberation, the choice fell, and the appointment was hailed with universal approbation. He felt, and he often expressed his conviction, that it was owing to the testimonials that your illustrious president gave, that his claims to the professorship were recognized. The next official station to which he was elevated, was one that was a source of great gratification to him, as it came from a body, determined scrupulously to weigh every consideration, before they appointed their pro-

fessor, and as the Society of Apothecaries had exhibited the greatest anxiety to forward botanical knowledge, their selection of Professor Burnett was a still further proof of the estimation in which he was held. He was, however, destined only to enjoy the honour which it conferred. Disease preyed upon his frame, and before he could fulfil the duties which devolved upon him, he was numbered amongst those who have been.

As a writer, his works have been highly estimated, and the popularity amongst students, of his *Elements of Botany*, is a proof that it is a practical guide to the study of plants; his edition of *Medical Botany* is replete with information, and displays his reading; his occasional lectures delivered in these walls, and also at the King's College, have been published, and have been admired; whilst upon the minds of those who heard them delivered, a lasting impression is left. His works will remain a memorial of his talents, his industry, and his knowledge.

As an editor of a distinguished medical periodical, he obtained the character of an impartial, acute, and honest critic; he praised wherever it was in his power; no unkind thought or expression ever issued from his pen, and where admonition was necessary, it was conveyed with a gentleness of spirit, and a mildness of feeling, that left behind no sting. He had the honour, during the last session, of filling the highly respectable station of President of the Westminster Medical Society; his firm and temperate manner conciliated for him the respect and esteem of all. I cannot but look back with pleasure to the circumstance, that it was my good fortune, as a member of that Society, to propose him as its president, and that I enjoyed an opportunity of expatiating whilst living upon those good qualities which, after life's fitful dream is past, we reflect upon with undiminished feelings of admiration; it was also my lot to second his nomination to the Professorship of Botany at the Royal Institution; and I likewise obtained from your president, permission to nominate him in this Society, little anticipating the time when I should mourn over him, dead, whom I ventured to praise whilst living. You—all of you—admired and respected him, and it was always with pleasure you received him here, and it was with the deepest sorrow we watched his gradual decay. He came to our councils, he assisted at our meetings to the last: he anticipated this evening's meeting, and looked forward to it with hope, yet with fear. He was with us the last night of our session, and we all inquired with anxious solicitude after his health, and heard him, with the self-deception that is so often attendant on disease, flatter himself with delusive promises, never to be fulfilled. His lectures here never failed to attract a large assemblage of fellows and of visitors, and he imparted his knowledge, which was most orderly and me-

thodically digested, with ease and with elegance. Determined to be accurate even in the employment of words, his discourses were remarkable for their clearness and their precision; indeed, he was a philologist of no ordinary merit, and he loved to seek, in our older authors, the names of the plants which he described, and from their quaint titles was often led to the discovery of their medicinal qualities, or the powers which our forefathers ascribed to them. It was still more delightful to accompany him in his botanical excursions, when surrounded by his pupils; he taught the grandeur of nature, her order, her simplicity, her truth; his mind was sensibly alive to the beauty with which the vegetable kingdom is adorned; he was richly endowed with that exquisite sensibility which exercises over some men the most delicious sway, and imparts to their thoughts an irresistible charm. He gave expression to these thoughts, with an enthusiasm which carried conviction to his hearers, and he clothed them in language which was classical, chaste, and impressive. He was beloved by his pupils, to whom he imparted his knowledge without reserve, and to whom he was indeed "a guide, philosopher, and friend." He taught them that botany was not a collection of names—a mere systematic arrangement—but that it belonged to agriculture, to commerce, to geography; he showed its utility, nay more, its absolute necessity to man, as furnishing him both with nourishment and with medicine for his support, and for the alleviation of the sorrows with which he is afflicted.

All his efforts have been directed for the improvement and happiness of man, and he has carried with him to the grave, the gratitude and the kind recollection of a host of friends, attached to him by the warmest ties. He has bequeathed to posterity the result of his labour and his industry, and likewise a reputation and fame, of which this Society reaps a rich and brilliant share, from the records it possesses in its Transactions.

It was unanimously resolved, that the report of the death of Professor Burnett be entered upon the minutes, in the language in which the secretary had announced it.

Charles Johnson, Esq. delivered an address upon the importance of the study of medical botany.

Mr. Foote read a paper on the application of the juice of the monchinal tree in cancer, translated by him, from the French of Mr. Germon.

—o—

WESTMINSTER MEDICAL SOCIETY.

Saturday, Nov. 21, 1835.

DR. ADDISON, PRESIDENT.

Mineral Magnetism.

DR. SCHMIDT repeated the experiments which had led him to believe the north pole produced a north pole, and the south a south

one, in opposition to the generally received opinion; a great number of experiments were shown both for and against the new "facts" adduced by Dr. Schmidt, and a long discussion ensued, in which Mr. Bird, Dr. Ritchie, and Mr. Everitt were chiefly distinguished. After three hours spent in the debate, no satisfactory conclusion having been come to, the Society adjourned at 11 o'clock—it having been moved by Dr. Johnson that the discussion of mineral magnetism, as a remedial agent in disease, be alone entered into at the next meeting.

Saturday, Nov. 28, 1835.

MR. RICHARD QUAIN IN THE CHAIR.

Death from Morison's Pills—Post-mortem appearances—Mineral Magnetism.

DR. SIONI, of Madrid, was elected an honorary member of the Society.

Dr. Granville said, he would be obliged to Dr. Johnson, if he would state to the Society the post-mortem appearances of the female who died from taking Morison's pills, whose case was reported in the newspapers.

Dr. Johnson had attended the inquest held on the body of the female in question, on the 23rd of the month. He had not the opportunity of seeing her previous to her death, in consequence of his being from home when he was sent for to attend her. Mr. H. Johnson and some other gentlemen examined the body twenty-seven hours after death, when the following appearances presented themselves. The abdomen was tumid, there was no peritoneal inflammation, but very slight marks of inflammation of the stomach, and also some slight appearances of abrasion of that organ. The duodenum was free from any signs of disease. The jejunum and ilium in different distinct portions, presented patches of an intense dark red colour, resembling dark mahogany, the vessels were so injected that many of them had given way, and the blood was extravasated in patches; there was no ulceration, but there were several points, which might be called abrasions, the mucous membrane rubbing off with the slightest touch of the handle of the scalpel; in the sound parts between the diseased patches above mentioned, there were rigid contractions of the membrane; the healthy and diseased parts did not blend together but were distinctly separated. Nothing particular presented itself in the large intestines; the colon was distended with air, the chest was healthy, the parietes of the heart were somewhat thickened, presenting appearances similar to those on the commencement of hypertrophy. In the head, the venous system was much congested throughout, but there was no actual disease of any kind; in fact, nothing was found in the body to account for death, except the morbid appearances in the jejunum and ilium, above mentioned.

In answer to a question from Mr. Verral, Dr. Johnson did not know whether there was a total cessation of action in the bowels for two or three days before death; but he had inquired of the medical gentleman who had attended her, who informed him, that shortly before beginning to take the medicine, about ten days before her death, the woman had been recommended to give her child Morison's pills for palpitation of the heart; she gave them accordingly, but the child got worse instead of better; she herself was seized with pain in the head shortly afterwards, and began taking the pills, which almost directly produced violent purging and vomiting; a neighbour told her the more they acted the better, and the more she was to take. She took eight to eighteen pills daily; the symptoms increased; she became delirious, and her friends would not allow her to take any more of the pills; she became comatose, and in that state died. The bowels could hardly be said to have acted for two or three days before her death, as there was nothing in them to be acted on.

Mr. Verral was induced to ask the question, from having had the opportunity some time ago, to witness two cases of death from taking these pills. One was the case of a phthisical young man, at Brighton, who took them for two months; at the end of which time, the bowels entirely ceased to act; enteritis came on, from the effects of which he died. The other case also happened at Brighton; it was that of an old gentleman who had been an inveterate swallower of Morison's pills. Mr. V. had assisted at the post-mortem examination. The small intestines were inflamed in patches, like those described by Dr. Johnson, but the intestines were not empty. The patient had taken thirteen to fifteen pills daily; their effect of purgation, however, stopped, and no other medicines would act. For nine days before death he had no dejection. The pills, with other medicines which he had taken to open the bowels, were found in a most offensive state.

Dr. Granville begged to ask Dr. Johnson, if he remembered whether the appearances in the case he related, were similar to those which had been described in other cases, in which death had been caused from taking these pills. Might not the woman have died from enteritis, produced from some other cause?

Dr. Johnson could not be expected to remember all the cases on record of death from Morison's pills; he would, however, state the reasons, why he had concluded the woman died from taking the pills. In certain convolutions of the intestines, there was intense inflammation, whilst other portions were not at all inflamed; he considered this to arise from the irritating substance having remained in certain portions of the intestines; the

portions so affected were well marked from the other healthy parts; had the inflammation arisen from natural causes, there would have been an imperceptible blending of the healthy and diseased portions. He considered the contraction in the healthy intervals, another proof in support of his opinion, for when irritating poisons were taken, the like effects were produced. Other irritating pills might have produced the same effect, if given so injudiciously as these had been; the vomiting was a symptom of an irritating substance being in the stomach. The absence of ulceration and all other signs, save those he had just mentioned, to account for death, had led him to believe the violence of the inflammation in the intestines had affected the brain, and she died from a shock given to the nervous system. People who had been in the habit of taking Morison's pills had complained to him of their producing headach and giddiness; he believed they contained a large quantity of extract of conium. It would be remembered, this woman died comatose. Here the subject dropped.

The subject of mineral magnetism was resumed, a very long discussion on which was entered into. Dr. Johnson said the Society had been employed during its last two meetings, about mineral magnetism, which had proved that doctors were not the only persons who disagreed, for natural philosophers of the first talent had been quarrelling all that time about one of the first laws of nature—attraction. The Society was like a ship becalmed between two poles, and could not move one way or the other; or like Mahomet's tomb, suspended between two great magnets. Nothing was decided at the former meetings. Now he contended, the power of the magnet as a remedial agent, like that of medicines, could not be decided by *à priori* reasoning, but by experience alone; he therefore considered it useless to discuss the subject until we had facts to work on.

Dr. Epps agreed with Dr. Johnson, that experience alone could decide on the properties of a medicine; but no medicine should be condemned because we could not explain its mode of operation; Dr. Schmidt had cured many diseases by the application of magnetism—amaurosis and cholera, in particular. Atmospheric changes were known to affect the system materially; why should not magnetism act on those nervous diseases which unfortunately are too common in our country? Dr. Ritchie had allowed that Dr. Schmidt was right when he asserted that the north pole produced a north pole, and Mr. Farraday had also considered it as a discovery.

Dr. Ritchie said he did not deny the north pole produced a north pole; but he contended that it must produce a south pole at the same time. Dr. S. had therefore only stated half the fact. The great question, however, to decide was this—Can the magnet, used in the way described by Dr. Schmidt, that of placing

the north poles opposite to each other, with the body to be acted on intervening, produce any physiological effects at all? Now, he contended that the magnet, without the aid of electricity, could under no circumstances produce any "physiological" effect. He challenged Dr. Schmidt to produce any effect in the way he had described.

Dr. Chowne wished the new power, which he understood Dr. Schmidt had discovered in the magnet, to be at once decided on, whether in existence or not.

After some further observations from various gentlemen—Dr. Schmidt said, he believed that the magnet undergoes some new modification from the facts he had observed; he had no wish to boast of what he *could* do with it; he *had* tried it in various diseases, and found it a successful remedy: he had no doubt of its value; and his object in coming before that Society was for the purpose of introducing its virtues to the notice of the medical profession. He should be happy to try the effect of magnetism on any poor patient of any of the gentlemen present.

Dr. Chowne asked if Dr. Schmidt's magnets were different from those of other persons? Dr. Schmidt replied they were precisely the same, but possessed more power: Dr. Farraday and Mr. Everitt had confessed this, and had purchased some of great power from him.

Mr. King expected some more scientific explanation from Dr. Schmidt; if the magnets possessed the virtues he ascribed to them, it would have been easy for him to have collected cases in which he had succeeded in producing good effects from the use of them.

Dr. Schmidt said nothing would have been more easy than to relate the cases, but he could not authenticate them, his chief cures having been made on the continent; he wished the Society to judge of cases for itself.

Mr. H. Thomson was authorized to give Dr. Schmidt as many cases of amaurosis as he might wish for, to try his remedy on; if Dr. S. would favour him by coming to Westminster Ophthalmic Infirmary, every facility should be given to him, and he would report progress to the Society.

Dr. Schmidt was most happy to accept the offer.

Mr. King believed he might confidently say the magnet had no power in curing disease. Dr. Elliotson had applied it in several cases; only temporary effects were produced—no permanent benefit. He now, however, wished to ask Dr. Ritchie whether he believed the magnet applied alone could have any physiological effect at all?

Dr. Ritchie contended that it could not.

Mr. Clarke thought the question of Mr. King a rather inconsistent one; he first stated that Dr. Elliotson had produced temporary effects by the magnet applied alone—that effect must have been a physiological one; and Mr. King now asks Dr. Ritchie

whether any effect *could* be produced by such application, after stating that an effect *had* been produced.

Some further conversation took place, in which it was strongly recommended to Dr. Schmidt that he would visit all the large hospitals, and try his remedy in all cases he could; for the virtue of a remedy like the magnet must be decided by an unlimited number of cases, and an unlimited time for its application. Under the impression that Dr. Schmidt would adopt this plan, the Society adjourned.

It is only due to Dr. Schmidt to state, that he appears willing to give every opportunity of deciding on the merits of his magnets.

—o—

LONDON MEDICAL SOCIETY.

Monday, Nov. 30th, 1835.

DR. WHITING, PRESIDENT.

Fractures of the Upper Part of the Thigh Bone.

MR. BRYANT exhibited a specimen of fracture of the upper part of the thigh bone, taken from a woman aged 63, who on the 27th of October was walking along the street, when she fell down, and was unable to rise again; she had struck the trochanter major of the left femur against the curb stone. She was taken home and put to bed, but no splints or bandages were applied. Three days afterwards Mr. Bryant saw her; he found the affected limb two inches shorter than the other, the foot was everted, and there was distinct crepitus on rotation of the limb. She was put on a fracture bed, but on the following night she became restless and uneasy, and tore off the dressings and splints that had been applied, and refused to have them on again. She was now placed on the affected side, the leg flexed, and the knee placed on a pillow. In this way she appeared to be going on very well until the 20th of November, when she became feverish; her tongue was dry and furred, the pulse rapid, and the skin hot and dry. She continued to get worse, and on the 28th she died. She had been a woman of very intemperate habits, and her constitution was much enfeebled by excess of stimulus. Mr. Bryant, when her strength appeared to be giving way, gave her her accustomed stimulus—gin. On examination after death, the bone was found to be fractured through the trochanter major; and the head of the femur was driven into the cancellated structure. The trochanter minor was broken off. The fracture was external to the capsular ligament; no attempt at union had taken place. Mr. Bryant had brought forward this case for the purpose of introducing to the Society the plan of treating fractures without splints, which has lately been so ably advanced by Mr. Radley, in several letters which have been lately published in the "*Lancet*."

Mr. Bryant thought that in fractures of the extremities of cylindrical bones, the plan was a good one, and worthy of trial; he did

not mean to say it would suit all cases; the present was one in which probably no plan would have succeeded. He should be fearful to trust to it, however, in fractures of the shafts of those bones.

After this statement of the case, a long discussion took place as to the cause of death in cases of accidents of this description, where the *post mortem* appearances were not sufficient to account for it. Mr. Bryant considered his patient to have died from the weakness of her constitution, and her intemperate habits, the abstraction of her accustomed stimulus bringing on a low fever, of which she sank.

Mr. Greville Jones thought she died from a *peculiar kind of irritation* in which exhaustion of the nervous power took place. He exhibited a specimen of fracture of the thigh bone of the gentleman who was a short time ago knocked down in Regent Street, and died in four days afterwards; the fracture was by no means a severe one, though comminuted, for there was no extravasation. Now the body was strongly muscular, there was no fever, and yet he sank. Another case in point was narrated: in Mr. Bryant's case he thought life had been prolonged by the judicious administration of the stimulus.

Dr. Johnson thought the shock given to the system at the time of the accident, might in old persons be sufficient to account for death, without reference to the accident.

Mr. Pilcher and Mr. Bryant considered the confinement to bed and constraint, were the cause of irritation in old persons, which frequently produced death in accidents of this kind. Mr. P. considered Mr. Bryant's patient did not die of irritation or collapse, but the reaction following it.

The subject of treating fractures according to Mr. Radley's plan, was then entered into.

Mr. Dendy thought the plan a good one in some cases of fractures of the extremities of cylindrical bones; but when the fracture occurred in the shafts, he thought the plan totally inadequate: he thought that it would be dangerous to leave the fractured limb to itself, for should spasm come on, or the limb be the least disturbed, a deformity might be the result. He was no advocate for complicated apparatus or bandaging; the less that could be safely used the better; but he could not consider that Mr. R.'s plan was a safe one in fractures of the shafts of bones.

Mr. Clifton thought the double inclined plane the easiest and safest plan of treatment—much better than laying the patient on the side. He would ask Mr. Bryant what advantage he considered was derived from the change of position he had adopted in the case in question.

Mr. Bryant replied he considered the position he had adopted a more easy one; though he did not expect to get perfect union of the bone, he thought it might have answered all the purposes of locomotion.

Mr. Dendy could not but consider the position on the side a bad one; the ends of the bones must rub together; however in Mr. Bryant's case, as there was no actual separation of the bone, such result might not have followed.

Another speaker thought Mr. Radley's plan a good one, in almost all cases. Mr. R. had given a very interesting case in which he had dispensed with splints and bandages, where both bones of the leg were fractured. The patient got about in five weeks, whereas, when he had once before only one of the bones fractured, and splints were applied, the union was much longer in taking place. With regard to the position, that must be adapted to the habits of the individuals, which is part of Mr. Radley's plan.

Mr. Pilcher thought the position should not depend only on the habits of the individual, but on the kind of fracture. He believed the plan of laying the patient on the fractured side, had been adopted by Mr. Abernethy, for the purpose of the pressure of the pelvis keeping the upper part of the fractured bone in apposition with the lower.

After some further remarks from one or two gentlemen, respecting the possibility of osseous union taking place in fracture of the neck of the thigh bone, within the capsule, it was believed by Mr. Pilcher and Mr. Clifton possible, but if it could be decided on the contrary, Mr. P. thought it cruel to keep the patient confined to bed, as had been done for weeks or months, for the purpose of procuring that union. The Society then adjourned.

—o—

MEDICAL BOTANY.

—

PLATE X.—DIGITALIS PURPUREA — FOX-GLOVE.

THIS is an indigenous biennial plant, very common on hedge-banks, and sides of hills, in dry, gravelly, or sandy soils, and the beauty of its appearance has gained it a place in our gardens and shrubberies. The leaves are large, oblong, egg-shaped, soft, covered with hairs, and serrated. They have a bitter, very nauseous taste, with some acrimony. We should choose the leaves of plants which grow spontaneously in elevated places exposed to the sun, and gather them before their inflorescence. Destouches analyzed foxglove. Four ounces of the dried leaves yielded successively nine drachms of watery, and seventy-eight grains of alcoholic extract. The first was brown, smooth, and of a consistence fit for making pills. The second had a very deep green colour, a virose and disagreeable smell, the consistence of tallow, but more tenacious; did not furnish ammonia by distillation, and was not acted upon by acids. The ashes contained salts of lime and potass. M. Le Royer thinks that he has discovered the active principle of digitalis, Digitaline. He describes it as brown, pitchy, deliquescent, capable of crystallization, but not crystallized, of intense bitterness, and seeming to possess the prop-

erties of the plant in a high degree. It has not, however, been admitted as an ascertained principle by other chemists.

The seeds are very small, and contained in an ovoid capsule.

Med. use.—The effects of foxglove, when taken into the stomach, are, to diminish the frequency of the pulse;* to diminish the irritability of the system; to increase the action of the absorbents, and to increase the discharge by urine.

In excessive doses, it produces vomiting, purging, dimness of sight, vertigo, delirium, hiccough, convulsions, collapse, death. For these symptoms the best remedies are cordials and stimulants. According to the doctrine of the new Italian school, it is one of the most powerful contro-stimulants.

Internally, digitalis has been recommended, in inflammatory diseases, from its very remarkable power of diminishing the velocity of the circulation; in active hæmorrhagies; in phthisis; in some spasmodic affections, as in spasmodic asthma, palpitation, &c.; in mania from effusion on the brain; in anasarca and dropsical effusions; in scrofulous tumours; and in aneurism of the aorta, and hypertrophy of the heart, I have seen it alleviate the most distressing symptoms.

Externally, it has been applied to scrofulous tumours. It may be exhibited, 1. In substance, either by itself, or conjoined with some aromatic, or made into pills, with soap or gum ammoniac. Withering directs the leaves to be gathered after the flowering stem has shot up, and about the time when the blossoms are coming forth. He rejects the leaf-stalk, and middle rib of the leaves, and dries the remaining part, either in the sunshine, or before the fire. In this state, they are easily reduced to a beautiful green powder, of which we may give, at first, one grain twice a day, and gradually increase the dose, until it acts upon the kidneys, stomach, pulse, or bowels, when its use must be laid aside, or suspended.

2. An infusion. The same author directs a drachm of the dried leaves to be infused for four hours in eight ounces of boiling water, and an ounce of any spiritous water to be added to the strained liquor, for its preservation. Half an ounce, or an ounce of this infusion, may be given twice a-day.

3. In decoction. Darwin directs that four ounces of the fresh leaves be boiled in two pounds of water, until they be reduced to one, and that half an ounce of the strained decoction be taken every two hours, for four or more doses.

—o—

Errata.—In page 546, in the Translator's note to Broussais' Lecture, for "So, on the one hand," read "To, on the one hand;" and, a little lower down, for "national" read "rational."

[Books and Correspondents next week.]

* Dr. Sanders, Dr. Epps, and others, contend that it increases the frequency of the pulse at first.—Ed.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXVI.

*Chronic Enteritis and Infantile Mesenteric
Disease.*

WE have still to examine the partial affections of the small intestine, which are less frequent than those of the stomach and duodenum, but whose existence is certain, and capable of being diagnosticated. In them digestion is effected in the stomach ; there is no pain in the passage of the aliments through the pylorus and duodenum ; lower down, and when they have reached the small intestines, abnormal movements commence, such as borborycni, nervous phenomena connected with hysteria, a host of distressing sensations, globus hystericus ; in short, a neuropathic state, which will be described in its proper place.

You may for the most part recognize partial phlegmasia of the intestines by percussion: on one or other side of the umbilicus, and sometimes beneath it, you perceive a spot that is more resisting and more painful, and the sound is then less clear ; there is no diarrhœa, but some colic: the intestines rumble in consequence of the alternate ascent and descent of gases in the points of constriction, and convulsive strangu-lation, &c. If there be no complication of acute or chronic inflammation of the upper portions, these are the only phenomena: the patients eat well, have no belchings, no regurgitations nor gastric heat ; but three or four hours after eating, nodosities begin to form in the intestines, percussion gives a clearer sound in some than other parts, and after the disease has continued for some time, pains come on. Generally speaking, pains do not readily obtain in the small intestines: it is rather colics that specially belong to them ; these do not produce strainings and desire to stool, but cause rending pains, as if the abdomen were about to give way, and

there is a feeling as if foreign bodies were in it: the patients bend to the side where such seem to be, and where the nodosities alluded to form, which shift their situation, now at the right and again at the left side of the umbilicus, and sometimes behind the bladder and uterus. The absence of the signs that belong to affections of the two last named organs prove that these colics have nothing to do with them.

Various shades of this enteritis may exist. It may be subacute, and such it is frequently found to be in children from five or six years up to puberty. This is the kind to which mesenteric disease is referable. You will read in authors that that disease occurs with diarrhœa, which however does not come on until the disease has passed the ileo-cæcal valve, and reached the great intestine. For a long time I had doubts on this subject, for want of sufficiently explicit observations: but I finally found grounds for dividing these enterites into two series—one with purging, the other without. Patients who in the first instance have none eventually, are attacked with them when the disease is not arrested, in which case they rapidly lose strength. Children are brought to you who have good appetite, eat with avidity, have an habitually small and frequent pulse, tongue somewhat red, as yet no diarrhœa, meteorized belly, nocturnal heat, and progressing emaciation. If you apply no treatment, and see them some months afterwards, you will find still the same meteorismus, and some hard lumps in the abdomen, which lumps are ganglions that are tumefied by the disease. At a later date diarrhœa commences. This diarrhœa by older authors is called lientery, and was regarded as the effect of an obstruction of the mesenteric glands ; they used to say that the glands being oppilated, chyle could no longer traverse them, but was evacuated by the stools along with excrementitious matters. And it is true enough that the stools are composed of greyish digested matters, that have not been deprived of their chyle by absorption. But this fact has been badly explained ; they thought that the mesenteric glands, primarily diseased and obstructed, no longer allowed the chyle to pass: but it is the enteritis

which hastens the flow of the food downwards, and it is the cæco-colitis that expels them. The glands are not primarily diseased; there may be an ileo-colitis with purging, without mesenteric obstruction—the latter, therefore, is not the cause of the purging, but the effect of the inflammation. The purging is owing to the phlegmasia of the mucous membrane, which hastens the movements of the muscular coat, and causes it to expel the chyle before it could have been absorbed. Subsequently, in consequence of sympathetic suffering from the irritation of the mucous membrane, the ganglions swell, and as children are more disposed to these kinds of swellings, they grow to a great size and degenerate into tubercles, if the disease be prolonged. Enormous masses of them are sometimes met with, and they strike the attention so much, that no thought is taken of the mucous inflammation, their primary cause. When at a certain pitch, this affection determines an effusion into the peritoneum, and this is not uncommon when purging is present.

Subacute enteritis is less frequent in adults, for one of whom that has it, there are twenty or thirty attacked by it. Adults have not, for the most part, fever, but, like children, they have meteorismus of the centre of the abdomen; there is some more resisting point: glands are also sometimes felt; the disease unchecked, diarrhœa comes on; sometimes lumps of considerable hardness form, caused by the annular contractions of the intestines. The disease ordinarily passes to the acute state, or a fatal peritonitis supervenes, or diarrhœa drives the patient into marasmus, and he sinks.

Chronic Colitis, or Diarrhœa. Contraction, and Obliteration of the great Intestine and Rectum.—Let us follow inflammation into the great intestine in all its portions, and into the rectum. In it there is always diarrhœa at the onset, for nothing stops the matters that have passed the ileo-cæcal valve; if the intestine be irritated, it expels them by the anus, unless there be a contraction. Contractions do sometimes occur in the great intestine, and colitis puts on different appearances according to their presence or absence. We will begin with colitis without contraction, or what is commonly called diarrhœa; we are speaking of the chronic form—if it were acute it would be dysentery.

Chronic colitis may be primary or secondary. When secondary it is the consequence of inflammation of the upper part of the digestive canal and small intestines; when primary, it comes on without any previous gastric symptoms, colics, fever, &c. As in the former case it is consequent on preceding affections, I shall dispense with any description of it: you may easily imagine a gastro-enteritis, not properly terminated, and which, after existing in company with meteorismus and pain, becomes complicated with

diarrhœa. I proceed, therefore, simply to describe that which is confined to the colon.

The most common cause of this disease is bad and incompletely digested food, and is produced as follows. Persons with sound digestive organs, take aliment that disagrees with their stomach, which causes but slight suffering; three or four hours afterwards they are seized with colics and have a motion. The appetite then returns, they eat again, and the same phenomena take place. Such persons feel little or nothing during digestion, that is to say, during the first three or four hours. But, as they go on, it comes to pass that three, four, or six hours after similar food they have colicky pains, and pass watery and fetid matters, which have an ammoniacal odour, and irritate the anus, producing heat in it. This is repeated until it becomes continuous; if the acute stage supervenes, it is an inflammation of which I have already spoken; if it does not supervene, the same individuals, even when they take proper food, continue to have the diarrhœa; the colon has lost its tolerance of matters. Some persons talk of the intolerance of the stomach for emetics; but they should also talk of that of the colon. This is fact, that any one may prove in his own person; let him only have a bad digestion, and an attack of diarrhœa, and he may retain the latter for a fortnight, even though he commit no more errors of diet; eat what he will, the diarrhœa will persist unless properly treated.

Another question arises: do you think it possible in a case of bad digestion occurring in a weak individual, whose stomach is unable to digest in consequence of insufficient stimulus—as in a convalescent, who takes too much food after having lost a great quantity of blood, and whose digestive canal is in an exceedingly mobile condition—do you think it possible, that out of this bad digestion, this diarrhœa from debility, an actual inflammation may arise? For my part, I do think so, and you will find reason to admit it. This individual continuing to take food, will continue to be purged; irritating fecal matters will stimulate the mucous membrane of the colon, give rise to an inflammation, marked by tenesmus, and subsequently to an inflammation, which, if not combated, will rise in the intestines and produce an enteritis, at first chronic, then acute, which may prove fatal.

Colitis having continued for some time in a chronic form, it often happens that the intestine is narrowed at its lower portion, from excessive sensibility, contracts, and no more matters find exit. You have an idea of this phenomenon at the period of the cure of all diarrhœas; from the time when copious liquid evacuations cease, the patients pass stools that seem to have been strained through a narrow tube, because the colon and rectum are narrowed. If the diarrhœa fails to return in three or four days, the colon

and rectum lose their irritability, and allow the matters to pass freely and to become moulded and large as before.

Let us see how these contractions are formed in consequence of colitis. Many people, after having had diarrhœa for a certain time, become constipated, pass thready stools, and finally have a more and more marked narrowing of the rectum or lower part of the colon; and this may even end in complete obliteration. This happens when, after several relapses, and an irregular life, some perturbing cause, such as sudden cold, fatigue, strong passion, &c., comes into operation: the irritation lights on the spot most inclined to receive it, and causes a narrowing there. At this very time I am in attendance on a gentleman so situated: it became necessary, in order to save his life, to dilate the rectum. He was in good health, but was a gourmand, was guilty of errors in diet, had diarrhœa from time to time, and was pressingly called on to go to the water closet, his colon having become intolerant. The intestine narrowed daily, and finally allowed nothing to pass; large masses of matters accumulated in it, hardened and remained there, until by dint of colics, and a flow of mucosities, which softened them, he ultimately, after nearly a fortnight's constipation, got rid of them. Talma, who died of complete obliteration of the rectum, had the disease induced by the administration of cold lavements; he found that nothing so well fitted him for the exercise of his brain as these injections, and he daily took them, especially when he was to appear on the stage. A phlegmasia supervened, and caused contraction of the organ: the constipation became more and more obstinate, and at length insurmountable, and he died the victim of a complete intestinal strangulation*. Thus then, a diarrhœa, with intolerance of the colon and rectum from excessive irritability, may have two terminations: either the patient, if not cured, will be exhausted by the purging, this being most frequently accompanied towards the close with effusion into the abdomen, and general œdema; or he will die with complete opiation, constipation succeeding on the diarrhœa.

Necroscopy of Chronic Gastro-intestinal Inflammations.—What we have to say under this head, applies to all the gastro-intestinal phlegmasiæ mentioned in preceding sections; and besides the interest that attaches to the

post-mortem examination of them, it is also requisite to know how to interpret what we see. You have traces of inflammation in many degrees, of old phlegmasiæ, of recent, of intermediate shades, of irritations communicated to tissues other than the mucous membrane, tumefaction, and degeneration of the cellular tissue interposed between the intestinal tunics and the reduplications of the mesentery, alterations of the mesenteric glands, suppurations, engorgements, divers degenerations of the principal appendices of the digestive canal, of the liver, the pancreas, and the spleen, and lastly, anatomical lesions of the third order, proceeding from the propagation of the disease to other organs, or, in other words, from its complications, such as pulmonary or cerebral affections, peritonitis, from perforation, or otherwise, &c. We should distinguish between these alterations, in order not to lay them all to the account of the same morbid condition, referring them, nevertheless, to their common cause, inflammation.

The most long-standing alterations of the mucous membrane are black or brownish: it is more friable, softened, sometimes ulcerated, thinned, or altogether destroyed: the muscular coat is often in the same state, completely obliterated, especially in the great sac of the stomach. In other regions of that organ, along the small curvature, and particularly towards the pylorus and cardia, the mucous membrane is rather swollen, thickened, indurated, together with the sub-mucous cellular tissue; so much so as to exhibit a lardaceous aspect, like congealed lard, or to constitute a species of degeneration, to which the name of encephaloid has been given, and which it has been attempted to abstract from the phenomenon of inflammation.

In the duodenum, black, brown, livid spots, prominent follicles, attritions of the mucous membrane, and ulcerations sometimes backed by scirrhusities, penetrating to the depth of half an inch. I have seen ulcerations that had extended as far as the great vessels, corrode them, and cause sudden death by perforation of them.

It has been maintained that, when a scirrhous exists in the stomach or intestines, and while at their internal surface there is an ulceration and excavation communicating in this scirrhous, the softening commenced in the centre of the latter, and that the disease subsequently proceeded towards the mucous membrane. I know not whether this can possibly happen, or whether they have found some means of beholding what does not exist; but meantime, having seen no instances of it, I am at least certain that, in the great majority of cases, the destruction commences in the mucous membrane, and that, behind this point of destruction, a hardness forms, which limits it, but into which, however, it makes more or less way.

I have been long engaged in the consi-

* Besides this, a tumour containing bloody coagula, and about the size of a pigeon's egg, was found after death at the apex of the heart, and communicating with the left ventricle: it was supposed to date from one of those sublime displays of passion with which the representation of *Britannicus* and of *Sylla* was wont to electrify the audiences of the Théâtre Français.—J. M. G.

deration of the formation of these scirrhus degenerations about hollow organs. When a mucous membrane is perseveringly worked upon in one point by an irritation, and ulcerates, a thickening and condensation takes place beneath it, the cellular tissue contracts, hardens, and is transformed; the glands, if there be any in the neighbourhood, unite with each other and with the organ. This cellular tissue and these indurated glands serve as a floor for the ulceration, and are, as it were, a means used by nature to prevent perforation.

There are considerable differences in the facility with which scirrhus is developed, according to age and constitution. Children, subject, as you know them to be, to lymphatic engorgements, exhibit them much more than old persons; scrofulous children especially, form a striking contrast in this respect with old men of dry habit of body. At Val-de-Grâce, we rarely find this kind of alteration in the veterans that die there of gastritis or chronic enteritis.

These scirrhus indurations are of two kinds in the digestive organs—those which implicate the cellular tissue, and those which implicate the ganglions. The former are more hard, and resemble rather a compact jelly or congealed lard; the latter are softer, and have a cheesy aspect, or like cerebral matter. For the rest, they run into each other, and are often intermixed.

Such then are the most long-standing alterations—softening, ulceration, and scirrhus.

Those of more recent date consist in various alterations of colour, consistence, density, &c., and approach more or less to the disorders consequent on the acute stage, which I have already described. After the inflammation has worn out one point, it passes to another, and there causes the usual ravages.

As regards the alterations of the other organs, they will be described in treating of their particular inflammations.

Of Hypochondriacism or Neuropathia consequent on Chronic Gastro-intestinal Inflammations.—I cannot quit the subject of chronic phlegmasiæ of the digestive canal, without mentioning a phenomenon that very commonly accompanies it; namely, a nervous condition that goes by the name of hypochondriacism or neuropathy. You are aware that this state is variously classed by authors: some place it among the diseases of the brain; others, following the ancients, in the hypochondria and digestive canal; and some again, spread it vaguely through the visceral nervous cords. As science now stands, nothing vague should be allowed: better to confess we know nothing about it, and wait patiently. Let us see whether we can be more precise in our ideas of it.

In our idea, hypochondriacism is a state of extreme sensibility of the nervous system, which induces the patient to consider him-

self more deeply affected than he really is, to relate his ailments with exaggeration, to individualize all painful feelings, and all the extraordinary commotions he feels, and to regard all his symptoms as so many different diseases. As we do not, for the most part, see any falling off in them, no vice of nutrition or circulation, which corresponds with the frightful picture themselves trace, such persons are apt to be taken for visionaries or madmen. Hypochondriacs have generally a mental exaltation, which makes them bestow minute attention to all that is going on in them. Primarily, and in the majority of instances, they owe their disease to a chronic phlegmasia of the digestive canal, and especially of the stomach and small intestines; for that of the large intestine is by no means capable of producing it, except it be situated in the ileo-cæcal region.

When these patients recite their ailments to you, they, of necessity, give the most accurate details of what is going on in their organs: they talk to you of swellings, of wind, of distention, of heats, of prickings, of animals that move, and bite, and tear them. Next, as you know there are sympathies between the digestive canal and the locomotor and cerebral apparatus, they describe fatigue, bruises of the limbs, extraordinary noises, &c.—in short, there is no end to their talk; yet what they relate is not purely imaginary—they feel it, otherwise they must be regarded as madmen.

Although long-continued suffering of the digestive canal is the most frequent cause of hypochondriacism, it does not follow that this affection is invariably and solely owing to such cause. There are hypochondriacs from affection of the heart, indeed many such; there are others from affection of the uterus, and these are called hysterical; but there are none from affections of the skin or of the lungs. The most rare are those that are owing to chronic gastritis, duodenitis, and jejuno-ileitis, complicated with hypertrophy of the heart. These various possibilities or complications will oblige me to return to the subject, and give a lecture on it alone, when we have despatched the inflammations, and arrived at the neuroses.

The phenomena of hypochondriacism that depends on the digestive canal, are more particularly observable when the morbid portion of the canal is in action. Thus, is the stomach the *mobile* of them, they are commonly remarked towards the second or third hour of digestion; does the duodenum or small intestine excite them, they appear two or three hours later.

It is to be remarked, that the more the patients are treated with stimulants, the more they become hypochondriacal, and that they become less, or cease to be so altogether, if we can contrive to diminish the exalted sensibility of the canal. The same observation is applicable to affections of the heart that are complicated with those of the

stomach or duodenum, and of the liver. It is, therefore, stimulated individuals that become hypochondriacal. I have seen some suddenly become so after a fit of indigestion. A lady, whose medical attendant had given her large doses of tartar-emetica—and in order to be sure of her taking them he remained at her bedside—became so after vomiting four successive days. She only recovered by perseverance in the use of mild remedies, and after a long course of them.

Some individuals readily become hypochondriacal, and many do not become so, or at least very slightly, in the same circumstances that drives others into that state. To solve this question, I sought for assistance in the data of the phrenologists, and I observed, that timid persons, with caution predominant, and in whom the organ of courage is small, readily pass into hypochondriacism, if they be tormented by an obstinate visceral irritation of the kind formerly alluded to, and this the more if they are stimulated. There are even some persons whose encephalon is so organized as that, without the presence of any real disorder, they imagine themselves to be suffering under a very serious one; these are visionaries, in whom, I believe, the organ of marvellousness plays a prominent part, and is, perhaps, somewhat superexcited. You should early accustom yourselves to believe, that each of our intellectual functions is connected with a particular region of the brain, and that to attempt to conceive of spirit without matter, is an illusion. No series of thoughts whatever exist, in which there is not some nervous system in motion. This study is daily acquiring greater consistence, and will finally force its way to predominancy, for it is founded in nature. People have laughed at it—but at what have they not laughed? Was not physiological doctrine itself subjected to the laughter of fools? Yet it has triumphed. And so it indubitably will be with the phrenological doctrine.

Prognosis and Treatment of Chronic Gastro-intestinal Inflammations.—General chronic gastritis approaches very nearly to the acute state, and readily passes into it, if stimulated; but this is not the case with partial gastritis, for, previous to passing into the acute state, it is necessary that they should extend; and this you learn by the loss of appetite, a more extensive gastric sensibility, sympathetic phenomena that did not previously exist, &c. The same obtains in chronic enteritis and duodenitis. These latter, however, do not readily pass into the acute stage, the evacuations preventing it: and this is the reason why purgatives palliate them, and induce effusions of fluids; meantime, they very rarely put an end to them, unless they be recent and only feebly inflammatory. When duodenitis tends to the acute stage, the constipation becomes more obstinate, the tension of the part augments, the right

hypochondrium tumefies and becomes more sensible, &c.

Enteritis also passes with difficulty to the acute stage, especially when the inflammation has gone beyond the ileo-cæcal valve, and the evacuations are copious. However, it does occur in daily practice, for a vast number of acute gastro-enterites are preceded by these chronic inflammations.

The symptoms indicative of these transformations are to a certain point common to all, and prove their uniformity of nature; they consist in diminution or loss of appetite, malaise, pains of the limbs, shiverings, sinister presentiments, depression of spirits, elevation of the pulse, flushes of heat about the head, burning and distressing digestion, &c. These symptoms are independent of scirrhus, of cellular, tubercular, or glandular induration, and appertain to the mucous membrane, particularly to its nervous papillæ, which are the structures of the digestive, which sympathize with the economy.

To prove fatal, these chronic gastro-intestinal inflammations must pass to the acute stage for some days at least: this is the general law of the case. We have, however, no right to assert that it may not happen otherwise; for there are individuals who die of bona fide inanition, without acceleration of pulse, from actual want of digested food. Such cases are exceedingly rare, and are scarcely ever met with in the course of several years of extensive practice.

The prognosis is drawn from the duration of the disease, from the manner in which it has been managed, and from the symptoms.

1. A general rule is, the longer the duration of these affections, the more difficult they are to annihilate. Reference must, however, be had to temperaments and climates. Individuals endowed with great gastric susceptibility, or in whom such disposition is hereditary, are cured with difficulty, and are subject to relapses during ten, fifteen, or twenty years; they are unhappily organized beings, who are unable to run a race with the agents of this world. You must therefore first ascertain whether you have to deal with such a person. Should the disease have commenced without a powerful cause, under the influence of ordinary modifiers, there is scarcely any thing but change of climate that can put a stop to it. Generally speaking, you should, in forming an idea of the future event of a disease, begin by appreciating the causes or modifiers by which it has been generated: if they be such as are easily removed, the chances of cure are greater: if not, so much the worse for you. When chronic gastritis, duodenitis, and enteritis are owing to change of climate, for instance, to transition from a cold or temperate to a burning climate, they are ordinarily cured by a return to the former. Of this I saw numerous instances in our Italian and Spanish cam-

paings. I have also seen opposite instances; persons whose reactive power is feeble, and who are subject to congestions during the winter, are seized with chronic gastrointestinal affections in cold seasons and countries, and only get rid of them in warm seasons or countries. I have known those who were well enough in Spain, but who fell ill in passing the Pyrenees; and in Paris you may observe a great number of individuals whose digestive organs are only disturbed in the winter season, most likely owing to the impulsion of blood by the cold, from the skin to the viscera.

When the disease has lasted a long time, and has returned in several successive years, it is more difficult to manage. In any case we should be on the alert for relapses, for they too easily take place. It often happens, that after taking considerable pains to bring a person round, the disease, when the patient has acquired a certain degree of strength and plethora, relapses. This you should expect, but not be discouraged by: very many see nothing more of the disease after having had repeated relapses. Here I may lay down an important principle of pathological physiology; namely, that when an individual has lived for a long time in a state of repletion inferior to plethora, or to the provision of blood that is requisite to the constitution and the state of full health, he is subject to congestions. This is not, or very rarely, observed among the consequences of accidental acute diseases, but is more common after chronic diseases that have relapsed or that have been cured by strict regimen and hygienic means. Be not alarmed at such congestions; prompt attention soon dissipates them. If they return, they are more and more slight, and finally cease to reappear; provided the patient be docile and the physician vigilant, they are prevented, and the health is consolidated.

2. As regards the treatment that has been pursued, you must first learn that persons who have been stimulated in the onset, are cured with more difficulty. I have daily opportunity of verifying this fact, because, in my present medical position, very many patients came to me, either of their own free will, or they are sent me by my professional brethren, from different motives—either, because they place confidence in me rather than in themselves, or being unable to cure them, they wish to embarrass me with them, or for the purpose of putting me to the proof. In such cases, I remark, that those who have been for a long time stimulated, and whose disease has been opposed by tonics and purgatives (the latter are not so dangerous, provoking, as they do, evacuations which counteract to a certain degree the bad effects of their stimulating power) not only retain a permanent inflammatory condition, but also a nervous one, and that then the disease takes a longer

time to cure, and is, even sometimes interminable. Even in this case you must look to the temperament: the consequences of bad treatment would be less to be feared in a robust person, than in one that is delicate, nervous, or lymphatic, disposed to scrofulous affections and rapid disorganizations,

The remaining circumstances of the prognosis and the treatment in our next.

—o—

LECTURES

ON THE

PHYSICAL EDUCATION AND DISEASES OF INFANTS, FROM BIRTH TO PUBERTY.

By DR. RYAN.

Delivered at the Medical School, Westminster Dispensary, Gerrard Street, Soho;

Session 1834-35.

LECTURE LIII.

—

Vices of Conformation—Intra-uterine and Extra-uterine Diseases of the Circulatory and Cerebro-Spinal Apparatuses.

GENTLEMEN—I concluded at our last meeting an account of the principal intra-uterine and extra-uterine vices of conformation, and diseases of the tissues that compose the thoracic organs, with the exception of those of the heart and its large vessels, which are next to be described.

Development and Vices of Conformation of the Heart.—It has been frequently observed that the heart is not formed before some of the large vessels, especially the vena porta. It first appears in the form of a semi-circle, presenting three dilatations, two contractions, which are the auricle, ventricle, and aorta. Such is the description given by the indefatigable Haller and others. As the development advances the cavities appear; and, according to Meckel, the left ventricle is at first larger than the right. It has also been remarked, that the auricles, in proportion as the infant is undeveloped in the early months, are larger than the ventricles, but as the growth advances this disparity disappears, and at birth the ventricles are much larger than the auricles. About the seventh week the aorta gives off the pulmonary artery.

Without prosecuting the history of the development of the heart any farther, as it will be found in the works on physiology and embryology, I may observe here, that the organ may be totally absent, as in acephalous infants, or sometimes have but one auricle or ventricle*. In some cases, the right auricle may be an inch in length, and

* Dr. Maaran (American Journal of the Medical Sciences, No. X.), and others.

in others the whole heart may be hypertrophied to double its usual size. The auriculo-ventricular apertures may be considerably contracted, and cause difficult respiration, or infantile asthma. The heart has also been found in the right side of the chest.

It is important to determine when the peculiarities of the fetal circulation cease, but as the account of M. Billard is the best I have seen, I shall quote it concisely.

This able pathologist observed, in nineteen infants of a day old, there were fourteen in which the foramen ovale was completely open, in two it had commenced to obliterate, and in two others it was perfectly closed. In thirteen of these infants the ductus arteriosus was open, and filled with blood; its obliteration commenced in four, and was completed in one. In the last, the foramen was also closed. The umbilical arteries were pervious at the iliacs, but their calibre was evidently diminished. In all the infants the umbilical vein and ductus venosus were open and free, and usually gorged with blood.

It may be concluded, from these observations, that in most cases the foramen ovale and ductus arteriosus are pervious on the first day after birth, but that these apertures may be obliterated even at this period of life. In twenty-two infants of two days old, the foramen ovale was pervious in fifteen, but completely closed in four cases. The ductus arteriosus was open in thirteen, it had commenced to close in six, and was entirely obliterated in three. The umbilical arteries in all were more or less obliterated in their whole extent, but the umbilical vein and ductus venosus, although empty and collapsed, admitted the introduction of a moderate-sized probe. These facts prove that the foramen ovale and ductus arteriosus are generally unobliterated on the second day after birth, and that the function of the umbilical arteries has ceased.

In twenty-two infants of three days old, the foramen ovale was pervious in fourteen, it had begun to be obliterated in five, and was entirely closed in three. The ductus arteriosus was open in fifteen, its obliteration commenced in five, and it was completely closed in two. These two had also the foramen ovale impervious. The umbilical vessels and ductus venosus were obliterated in all. We may conclude from these observations, if we admit them to be sufficiently numerous, that in infants of three days old the ductus arteriosus and foramen ovale are not generally obliterated. In seventeen infants out of twenty-seven, of four days old, the foramen ovale was open, and in six the aperture was remarkably large, and distended with blood. In eleven others the opening was barely free; in eight the process of obliteration had commenced, and in two it was completed.

The ductus arteriosus was open in seven-

teen of these infants, it was contracted in seven, and completely closed in three: the umbilical arteries in all were nearly obliterated at the navel, but still capable of being dilated at the iliacs. The umbilical vein and ductus venosus were empty and considerably contracted.

In twenty-nine infants of five days old, thirteen had the foramen ovale open, but it was more or less contracted. It was greatly dilated in four bodies, and diminished in ten others. It was almost entirely obliterated in six others, and it was so closed in six others, that it was impossible to establish any communication between the auricles. The arterial canal was open in fifteen bodies, and very much so in two. The obliteration was considerably advanced in five others, it was nearly closed in seven, and completely so in seven others. The umbilical vessels were perfectly obliterated in all.

It is important to observe, that none of the infants, whose autopsies are given, presented any sign of disorder in the functions of respiration or circulation.

In twenty infants of eight days old, there were but five in which the foramen ovale was open; it was incompletely closed in four, and its occlusion was perfect in eleven. The arterial canal was free in three only, and in one of which it was aneurismal; and in six it was nearly obliterated, and completely so in eleven. The umbilical veins and arteries were entirely impervious.

In infants from the twelfth day to the third week of age, the foramen ovale may remain open without any disorder of respiration or circulation.

It appears from the preceding facts, that the fetal apertures are closed at different periods of life, and that the foramen ovale and arterial duct are generally obliterated from the eighth to the tenth day. We may also conclude that the fetal vessels are obliterated in the following order:—First, the umbilical arteries; next the veins of that name; then the arterial canal; and, lastly, the foramen ovale. Let us now examine the mode of obliteration of these apertures and vessels.

Mode of Obliteration of the Fœtal Apertures.—There are two causes which close the apertures peculiar to the fetal circulation after birth—1, the establishment of respiration and pulmonary circulation; 2, the change of tissue in the umbilical arteries. The umbilical arteries, at birth, possess a great power of contractility, and oppose the effusion of blood from the infant. It has been long observed, that when infantile respiration is completely established, little, if any, blood will escape from the umbilical cord, and this fact has led some to contend that a ligature on the cord is unnecessary. I have adduced reasons to disprove the validity of this opinion on a former occasion,

and I may now add, that the navel cord is tied, or a ligature is applied round it, at present, in all civilized countries.

But as soon as respiration is established the blood ceases to flow through the arterial canal, for this is no longer necessary, and that tube becomes closed. (Berndt, Carcano, Trew, Arrowsmith, and many others of the modern physiologists). I have already explained this point of physiology, when describing the mode of applying a ligature on the umbilical cord. I may here observe, that at the moment the umbilical cord is divided, the vein of this name becomes incapable of receiving blood into its calibre, as there cannot be a regurgitation into the vena cava inferior. The coats of the umbilical vein collapse, and speedily become obliterated, like all other canals through which fluid is not constantly or frequently passed. These facts are so highly important in cases of infanticide, that Mr. Chitty, the eminent barrister and voluminous legal writer, has written to me, as the author of a work on medical jurisprudence, on the subject, requesting me to describe these changes.

Intra-uterine Diseases of the Heart and Great Vessels.—The heart and its large vessels are liable to malformations, which consist in diminution or enlargement of some of the cavities, atrophy, hypertrophy, various degenerescences, inflammation, aneurism, &c. The commonest disease of the heart is, however, the persistence of the inter-auricular aperture or foramen ovale. This does not always produce inconvenience after birth, or in early life, and it does not prevent the proper oxygenation of the blood in the lungs, as is generally supposed. If, however, there exists at the same time a considerable plethora, with difficulty or impossibility of the establishment of respiration, the oxygenation of the blood may be prevented, and cyanopathy, or blue disease produced. Nevertheless there are numerous examples on record of the persistence of the foramen ovale, without the production of cyanosis or cyanopathy. Again, we see a transient form of the disease when the new-born infant respires with difficulty, and is pressed on during a protracted labour, or in pneumonia, in asphyxia, and in malignant cholera, although there is no malformation of the heart. Nevertheless, it is extremely probable that the blue coloration of the teguments is caused by a mixture of arterial and venous blood in the heart, or by a defect of oxygenation in the lungs. When the cavities of the heart are normal, and when there is any condition of the lungs which prevents oxygenation, or the change of venous into arterial blood, cyanopathy, to a greater or less extent, may prevail. It therefore follows that this blue disease is caused by want of oxygenation of the blood in the lungs, and not from the

existence of an opening between the auricles. But it may also be produced by this vice of conformation of the heart, with or without pulmonary congestion, or inflammation, or by such conditions of the lungs without any organic disease of the heart.

This pathology is correct, but there may be another cause of cyanopathy. Thus M. Breschet describes an autopsy of an infant a month old, in which the left subclavian artery arose from the pulmonary, so that the upper extremity of this side was supplied with black blood, and, strange to say, was as well developed, and as well coloured, as the other.

We may conclude, from the preceding facts, that cyanopathy of new-born infants, whether local or general, depends, in a majority of instances, on sanguineous congestion of the heart or lungs; and that the best means to remedy the disease is, according to the advice of Corvisart, to place the body of the afflicted infant before a clear fire, and rub well with warm cloths. This practice ought to be persevered in for a considerable time, with frictions over the face, cervical and dorsal portions of the spine, made with some stimulating liniment, which are far preferable to the various aspersions of cold water and ardent spirit, so much recommended by some obstetric writers. When cyanopathy is caused by pneumonia or asphyxia, the proper means for the removal of these diseases ought to be employed.

There are other intra-uterine or congenital diseases of the heart, such as aneurism of the organ and of the ductus arteriosus, which are described by M. Billard. He also detected only seven well-marked cases of pericarditis in 700 infants at birth. In one of these cases the adhesions were so firm that they must have taken place during intra-uterine life. In the other six there was a sero-albuminous effusion, and filaments extending from the pericardium to the heart.

The inner surface of the pericardium and external of the heart have been studded with petechiæ of a red or violet colour, accompanied by sero-sanguinolent or sanguineous effusion. This condition depended on passive congestion, and not on inflammation.

It is also worthy of notice, that we usually find more or less serosity in the pericardium of very young infants.

It is scarcely possible to distinguish between pericarditis and pleuritis in new-born or very young infants, or those at the breast, but this is of little consequence, as both diseases are treated with the same remedies.

Cöhler has observed lymphatic concretions in the cavities of the heart and great vessels, about the size of a bean; but others have supposed that they were formed immediately after death*. They were most frequently

* Dict. de Méd. Art. Œuf.

found in scrofulous children who laboured under mesenteric disease.

M. Billard found scirrhus of the heart of an infant who died on the fourth day after birth. This is a most rare occurrence in adults, and many have even doubted its existence.

There are many other vices of conformation and congenital diseases of the heart besides those already noticed; and these I shall now proceed to describe. I shall prove hereafter that a knowledge of the intra-uterine and extra-uterine pathology of infants is of immense importance in the treatment of the diseases after birth, and in our decisions on the viability or non-viability of infants in cases of prolicide, fœticide, and infanticide. If it is proved that an infant was so formed that it could not live or arrive at maturity, the humanity of our laws awards a slight punishment, compared to that for abortion or infanticide in those cases in which the conformation is natural, and the fœtus might have arrived at the adult age.

Simple Displacements of the Heart.—There are two species of displacements of the heart: 1, when the organ is displaced in the precordial region, as when its apex is turned to the left side; 2, when the organ is in the right side of the chest, or in the abdomen, or in the head.

Lancisi, Morgagni, and Corvisart designated displacement of the heart, *prolapsus*, when the organ had descended from its ordinary position; and the latter celebrated pathologist held, that a large aneurism of the aorta would cause such displacement. Senac described an example in which the heart was placed on the diaphragm. The heart may be pushed upwards by large tumours in the left side, or by a copious effusion into the peritoneum—ascites.

Numerous authors have observed the heart in the right side of the chest (*dextiocardia*), in consequence of effusion into the left side of the chest, after pleurisy, among whom are Boerhaave, Sennert, Stoll, Merey, Becclard, Laennec, Larrey, Bouillaud, Velpeau, and many others. Weyland describes a case, on the authority of Chaussier, of an infant that died soon after birth, in which the stomach, a great portion of the intestines, the spleen, and the pancreas, were contained in the left cavity of the chest. The heart, both lungs, and thymus, were in the right thoracic cavity. (*Dissert. Inaug. Med.*, Jena, 1831). The heart has also been situated on the median line, and M. Chaussier reports a remarkable case in which the lower part of the sternum was absent, and the heart placed under the skin. (*Bull. de la Faculté de Med. de Paris*, 1814). Vaubonais gives the history of a fœtus born at the eighth month, in which the heart protruded from the superior part of the thorax, through an aperture; it was uncovered, and hung like a medal from the neck. (*Mem. de l'Acad. des Sciences*, 1712).

Dr. Martin Martinez reports a similar case in an essay published at Madrid in 1723. Tournelle saw an infant who had an opening in the inferior part of the chest, through which the heart escaped, and descended to within an inch of the umbilicus. Baudelocque mentions a singular example of bicardia in an infant, who died a short time after birth. It had two distinct hearts, one situated in the abdomen, the other in the chest; and these communicated with each other by different vascular ramifications.

In an infant extremely deformed, which was born at the Maternity of Paris, in 1812, M. Chaussier found a hernial tumour at the umbilicus, which contained the greatest part of the abdominal viscera, and also the heart. There was an aperture in the diaphragm. The same distinguished professor related another remarkable case of cardiac hernia to the Faculty of Medicine in 1814. He examined a female infant born alive at the Maternity, which presented at the superior and anterior part of the abdomen a soft tumour, which contained the heart. The infant was alive, sucked the breast, and performed its functions.

M. Breschet has published an interesting memoir on *ectopia* of this organ, and divides displacements of the heart into three genera—1. *Thoracic ectopia* of the heart; 2. *Abdominal ectopia*; 3. *Cephalic ectopia*. In such cases there is a solution of continuity, or malformation of vicinal organs; and infants so constituted generally die soon after birth, and never arrive at maturity. In such cases, the pericardium is sometimes absent.

Acardia—Absence of the Heart.—M. Becclard has described several examples of this defect in his work on *Acephalous Monsters*. Vogli furnished the history of a singular case to Valisnieri, in which an infant was born *alive* without heart, lungs, diaphragm, liver, spleen, or renal capsules. It had the spinal marrow, kidneys, bladder, uterus and appendages, stomach and intestines. Bianchi and Valsalva saw this infant. Notwithstanding their testimony, few can believe that a monster without a heart, lungs, or diaphragm could perform any movements after birth. Billard considers that absence of the heart is caused by atrophy, dependant upon destruction of the centre or a part of its nerve. He concludes that an accidental disease during intra-uterine life, which indicates atrophy or destruction of the medulla oblongata, and of the superior part of the medulla spinalis, is the cause of all the irregularities and defects in acephalous infants.

Absence of One Half of the Heart.—There are cases recorded of absence of one half of the heart. Kreisig relates a case of this kind in his work on diseases of the heart; and M. Breschet mentions another. Mauran gives the history of an infant that lived ten days, and at the expiration of that period died of suffocation. The heart was composed of one auricle and ventricle, and the

pulmonary artery was obliterated. (American Journal of the Medical Sciences, 1827). It is not easy to understand how life could be continued so long with such conformation.

Dr. Turner published the report of a case in which both auricles were absent. (Journ. Gen. Med., t. xcvi.) M. Destrés communicated the following facts to the Royal Academy of Medicine of Paris:—In a monstrous foetus, born at five months and a half, the heart was very voluminous, situated to the right side of the chest, its apex being under the false ribs of this side, and its base corresponding to the vertebræ. It had but one auricle, which communicated with both ventricles. The pulmonary artery opened into both ventricles. The pulmonary veins opened directly into the left ventricle. The right ventricle wanted the tricuspid valves, the left had no mitral. The aorta and pulmonary artery were without the sigmoid valves. The aorta gave off the brachiocephalic trunk, and the arterial canal, and then terminated in the left subclavian artery. The pulmonary artery, after having supplied the large branches to the lungs, and received the arterial canal, ascended before the aorta to the summit of the left cavity of the thorax, then turned along the spine, and supplied the mesenteric, splenic, hepatic, renal, and crural arteries, and terminated by the umbilical. The left side of the chest was occupied by the stomach and small intestines. The left side of the diaphragm was wanting. All the valves of the heart may be absent, or any part of them, (Bouillaud, *Traité Clinique des Maladies du Cœur*, &c., 1835). I am indebted to this splendid work for many of the preceding observations; it is one of the most graphic, laborious, and valuable monographs which modern times have produced.

Bicardia—Tricardia—Augmentation of the parts forming the Heart.—Plurality of heart is extremely rare, according to Meckel, unless when there is foetal duplicity. This anomaly leads us to suppose so great an aberration from the laws of evolution in general, that we can scarcely consider it compatible with the duration of extra-uterine life.

I think it is scarcely possible to admit, with Plazzoni, Baudelocque, and Collomb, that in well formed adults there existed two hearts. But are we to conclude on the reports in the (*Ephermides Curios.*), which set forth the histories of two individuals, each of whom had three hearts? M. Geoffroy Saint Hillaire and M. Bouillaud declare these facts inadmissible; and I fully agree with them.

In cases of two monsters united together, such as the Siamese brothers, Hungarian sisters, and Retta-Christina, &c., there are two hearts, as attested by Dupuytren, Baudelocque, Gintrac, and others.

Augmentation of the parts that compose the heart are of very rare occurrence. Che-

mineau described a heart with three ventricles*.

Kerkring relates an example of an infant of three months old, in which the right ventricle was bifid.

De Hean mentions a supernumerary appendage to the left auricle (Rat. Med., part ix); and Billard, a similar case in a female infant, that died a few days after birth, from whose auricle there was a prolongation of an inch, which floated in the pericardium in front of the heart.

Vices of Conformation in the vessels connected with the Heart.—The aorta has arisen from both ventricles, according to Nevins, in this country, and to Sandifort, Stander, and Tiedemann, in Germany. The pulmonary artery has also taken its origin from both ventricles. At other times, both these great arteries have arisen from the same ventricle. In some instances, the aorta has arisen from the right, and the pulmonary artery from the left ventricle; and in such cases the respective veins were normal. Infants having this abnormal disposition of these arteries, generally survive only a short time after birth, though Farre described one subject who lived to the fortieth year.

The vena azygos is sometimes inserted into the right auricle. Lecat found it divided into two branches, one of which opened into the right, and the other into the left auricle.

M. Breschet found the hepatic veins form a common trunk, which opened into the right auricle†.

Other pathologists have observed the ductus arteriosus connected with the left ventricle. Some anatomists have described two venæ cavæ superiores, which opened into the right auricle; but M. Saint Hillaire considers that this disposition was caused by the non-union of two subclavian veins.

The right auricle has given insertion to one, or many pulmonary veins; and the left, on the contrary, the inferior cavæ and a superior cavæ, there being really two distinct venæ cavæ superiores (Bouillaud, *op. cit.*)

Meckel has observed the great coronary vein opening into the left ventricle.

These anomalies of insertion and connexions of the veins, coincide with other vices of conformation of the heart, and have been observed in infants aged a few days, weeks, or about a year, most of which died very soon after birth.

Diseases of the Cerebro-Spinal Apparatus.—The ancients supposed that the spinal marrow was a continuation of or an appendage to the brain (Galen, &c.); but Plato, Praxagoras, Philotene, and others, maintained the contrary opinion. In our days, Gall and Tiedemann have demonstrated that the spinal

* Hist. de l'Acad. des Sc., 1569.

† Mem. sur les Ectopies du Cœur.

marrow is developed before the brain, which is only an expansion of it, and is at first extremely small. It is admitted by all authors, that there is continuity and sympathy between both; and for this reason they are termed, by physiologists, the cerebro-spinal apparatus, or system.

Vices of Conformation.—The medulla spinalis may be entirely absent (amyelia); and in such cases there is also absence of the brain. Morgagni has enumerated several examples of simultaneous absence of the brain and spinal marrow; and M. Ollivier remarked, that in such cases, there is spina bifida.

The spinal marrow is often deformed at its superior extremity in cases of anencephalus; and sometimes the spinal cord is divided wholly or partially, into two lateral halves (Zacchias, Manget, Hall, and others). The medulla spinalis has presented a cavity in its centre, and the fluid in hydrocephalus, has partially passed into it. I have already observed, when describing congenital dropsies, that there is often a communication between hydrocephalus and hydrorachitis. In some cases, the medulla spinalis has been jaundiced (Kyrrenose, Lobstein); and in others it has been completely divided in a transverse direction. Ollivier describes this last condition in the adult.

The vices of conformation of the cranium and brain are very numerous; but I have described them on a former occasion.

Diseases of the Cerebro-Spinal Apparatus developed after birth.—Congestions of the cerebro-spinal system are common to new-born infants, in consequence of the great vascularity of these parts, the slowness of the circulation, and the influence of respiration on the cerebral and spinal circulation. The slowness of parturition, the tractions necessary in certain cases, the difficulty with which respiration is established, and the sudden change in the foetal circulation, explain the causes of the frequency of sanguineous congestions, which vary from simple injection of the meninges to apoplectic effusion. The term apoplexy is applied to various degrees of congestion in new-born infants; but in most cases of death from this disease, there is no sanguineous effusion or circumscribed hemorrhage, as in cases of adults.

Injection of the meninges or membranes of the brain, is so common in new-born infants, that it ought to be considered a natural, and not a pathological, condition. It is most frequently observed alone, or accompanied by sanguineous effusion at the inferior and posterior part of the spine; and seldom causes any characteristic symptoms during life. But when the injection is considerable, it is often followed by a sanguineous effusion on the surface of the meninges, the blood is coagulated, compresses the brain or spinal marrow, causes stupor, and the other signs of apoplexy. There are five

species of meningeal apoplexy, according to the observations of M. Serres.—1, meningeal apoplexy without effusion; 2, with serous effusion; 3, with sero-sanguineous effusion; 4, with arterial rupture or aneurismal dilatation; and 5, with venous rupture. There are the same number of species of cerebral apoplexy.—1, with hemiplegia; 2, with paralysis of one arm; 3, with paralysis of one leg; 4, with double hemiplegia; and 5, with complete paralysis from a single attack. This experienced pathologist cites numerous cases, to prove that *the sanguineous and serous effusions are the effect, and not the cause, of apoplexy*—that in simple apoplexy, the membranes of the brain are affected in various degrees, or there are serous collections in the ventricles or convolutions. When the apoplexy is followed by paralysis, there are no effusions, no affection of the membranes, but the substance of the brain is materially altered in structure; it is lacerated, or some vessel has given way, which was proved by filling the carotids with a fine injection. When the whole body is paralyzed, and death rapidly occurs, the extravasation will be on the pons varolii, or tuber annulare. It is worthy of recollection, that in apoplexy, the patient falls upon the affected side, a fact which will lead us to modify the treatment. Such are the results of 3000 cases.

The injection of the substance of the brain is also of common occurrence; it consists of red or dark spots, and is generally observed on the corpora striata, the optic thalami, or in one or both ventricles. The vessels of the brain are most numerous in those parts which are the most common seat of inflammation and hemorrhage at all periods of life. Morgagni, Lallemand, Serres, and Bouillaud, have rendered this fact incontestable.

It is important to state, that M. Billard had observed but one apoplectic infant, in whose brain there was circumscribed hemorrhage, about which the substance of the organ was a little softened, to the extent of an inch in length and half an inch in breadth. M. Berard has met with intra-uterine apoplexy at the eighth month and a half, and the clot was about the size of a nut*.

Ramollissement or Softening of the Brain may exist in new born infants, with or without inflammation. In the latter form of the disease, the affected part appears to be softened or decomposed without any signs of increased vascular action. The diseased part is found soft, or dark, mixed with small clots. The medulla oblongata and medulla spinalis may be similarly affected. In such cases there is flaccidity with immobility of the extremities, the pulse is feeble and the deglutition difficult. The symptoms, when the brain is affected, are very obscure. The lateral parts of the hemispheres and the corpora striata are most commonly affected.

* Compte rendu de la Soc. Anatomie. 1828.

The symptoms are those of encephalitis; sensibility and muscular power are gradually diminished, somnolence supervenes, there is strabismus and dilated pupils, with paralysis, rigidity of the muscles, or convulsion. The disease is often confounded with arachnitis of the base of the brain, both in infants and adults.

The symptoms of ramollissement of the medulla spinalis are, pain in some part of the spine, sensation of pricking and darting in the extremities, no derangement of the intellectual faculties, unless the disease is seated near the pons varolii; when there is loss of sense, aphonia, with trismus, paralysis of the whole body, retroversion of the head, and difficult respiration. When the cervical portion of the spinal marrow is affected, the signs are rigidity of the neck, permanent contractions, or convulsions of the superior extremities, which are succeeded by paralysis and impeded respiration. When the dorsal portion is diseased, there are convulsive motions of the trunk, fever, pains in the abdominal viscera, and embarrassed respiration. Lastly, if the lumbar portion is the seat of the disease, there may be paralysis of the lower extremities, retention, or incontinence of alvine and urinary evacuations. When the disease is slight or becomes chronic, the paralysis of the lower extremities, and of the bladder and rectum, supervenes gradually.

The treatment of cerebral or spinal congestions in new born infants, consists in depletion, by allowing the umbilical cord to bleed before it is tied, and applying one, two, or three leeches to the base of the cranium, or one over each jugular vein. In fine, the remedies proper for cerebral congestions, apoplexies, or hydrocephalus, ought to be employed.

Cerebritis, or *phrenitis*, is a rare disease in new born infants; and *meningitis* is still more rarely observed except in hydrocephalus, which will be immediately described.

Spinal meningitis is much more common than myelitis, or inflammation of the medulla spinalis. This disease, when seated near the base of the skull, gives rise to convulsions of the face and upper extremities. In thirty cases of convulsions of new-born infants, there were twenty of the subjects affected with spinal meningitis, six with cerebral and spinal—facts attested by M. Billard. Rachitic meningitis is often complicated with pleuritis and peritonitis, and accompanied by fever.

Cerebral Meningitis.—The symptoms of this disease are nearly the same as in hydrocephalus; there is fever and general disturbance of the whole economy, the infant is peevish, fretful, it screams suddenly while awake or asleep, and there is a well-marked remission of its symptoms. This has led some authors to describe a remittent hydrocephalic fever. There is disturbance in the functions of digestion, respiration, secretion,

&c. The countenance is anxious and distressed, the superior extremities are agitated or convulsed; convulsions, coma, dilated pupils, and strabismus, supervene. In fine, all the symptoms of hydrocephalus, which I described on a former occasion, become developed. These I have also enumerated, when speaking of cerebritis, meningitis, and hydrocephalus, in my edition of Hooper's Physician's Vademecum, and in my Lectures on the Principles and Practice of Medicine. I shall, therefore, content myself with observing on the present occasion, that the diagnosis between cerebritis and meningitis is difficult, but this is of little importance, as the treatment is the same as I have already stated.

Inflammation of the brain, or its membranes, is much more rare than congestion, which is a common occurrence in all diseases of the respiratory organs which embarrass their function, as pneumonia, pleuritis, bronchitis, pertussis, tracheitis, or croup, spasmotic croup, or asthma of infants, and the various diseases of the heart, abdominal, and pelvic viscera. The diseases of the trunk, superior or inferior extremities, or any part of the body may also induce it.

The treatment consists in general and local bleeding, purgation, cold to the head, sinapisms to the feet, warm bath, with cold to the head while this remedy is being employed.—(See Apoplexy and Hydrocephalus).

Convulsions.—This disease is most commonly the result of cerebral or spinal meningitis, but may be produced by irritation in any part of the body. Thus, retained meconium, acidities, or flatulence in the stomach and intestinal canal, worms, the milk of a nurse who has lately suffered from exciting or depressing passions, who is intemperate, or uses too much vegetable aliment; painful dentition, pain in any part of the body, surprise, fear, dread, and irritation, are remote causes of convulsions. To these may be added the non-appearance or repression of cutaneous eruptions, such as small-pox, scarlatina, measles, and numerous chronic diseases of the skin, the ingestion of poisonous or irritant medicines, or local injury of any kind, surgical operations, burns, scalds, &c.

When there are signs of cerebral congestion, local and general bleeding, purging, the warm bath, with cold to the head, whilst it is being used, and warm or sinapised pediluvia, are afterwards required. If atony or debility characterise the attack, antispasmodics, opium, sedatives, and carminatives are indicated, with animal and vegetable, jellies, tonics, quinine, chalybeate preparations, &c. The exciting cause of the disease which produced the former complaint, ought to be controlled, or removed when possible.

When convulsions is caused by fear, horror, or disgust, it is to be combated by moral, sedative, and antispasmodic remedies.

Tetanus.—Modern pathology has thrown no light on the cause of this disease, either in infants or adults: it still remains among the *opprobria medicorum*. When it attacks infants, it generally proves fatal in twenty-four or thirty-six hours.

The *treatment* proper for adults, appropriately modified, ought to be employed. Fortunately, the disease very rarely attacks infants in temperate climates, and is now much less common than formerly.

Chorea.—St. Vitus's, or St. Guy's dance is a disorder whose pathology is as yet unknown. The symptoms are involuntary and irregular movements of all the voluntary muscles of the upper and lower extremities, which produce remarkable grimaces and contortions. The disordered muscles are often affected with a sensation of pricking, creeping, or numbness. The disorder attacks children from the age of seven to fourteen years, females more frequently than males, and very rarely adults, unless when it has been congenital. I have seen a young lady in Gray's Inn Square, who had chorea from the earliest age, and after puberty; she also suffered from a hysteric, and spinal curvature. A vast number of the most eminent physicians and surgeons were also consulted in this case. If the patient is desired to convey a cup to the mouth, the hand shakes and is carried in an opposite direction, and this appears to be a voluntary act to the spectators. This, however, is an error: in some cases fatuity ensues.

It was long considered that the cause of this complaint was the feebleness of the nervous system, which is remarkable in infancy, and which disappears at puberty when the constitution is more developed.

This affection is often contracted by imitation, as observed at the fêtes in honour of St. Vitus at Ulm. It was even considered epidemic and contagious in former times, as it often attacked several children in the same school. This notion is now exploded. The *treatment* consists in purgation, or depletion in full habits (Sydenham), tonics and chalybeates (Cullen), electricity (Detteau, Gardane, Underwood, and Fothergill), assa-fetida, (Wanters), camphor (Poissonier), and oxyuriate of mercury (Bosquillon).

I have invariably found that moderate purgation, quinine, carbonate of iron, and other tonics, speedily cure this disorder, unless when it is congenital, and the patient has arrived at the adult age. In those cases in which it is complicated with hysteria or spinal irritation, appropriate remedies are required.

Epilepsy.—This complaint may attack infants, from birth to the age of seven years, and from this period to puberty: there are more girls than boys affected. Its pathology is still unknown, and its *treatment* is unsatisfactory in most cases. Various disorganizations have been found in the brain and its membranes, which no remedies could

remove. But the disease often ceases at the seventh year, when dentition is completed, and childhood commences, or at puberty, the adult age; but it may continue for life. When it is of short duration and violent, it is termed acute, and also designated eclampsia by some authors.

It resembles convulsions, but may be distinguished from that disease, by being succeeded by stupor and temporary derangement of the intellectual functions. We, therefore, do not confound these species of neuroses.

Epilepsy is more or less dangerous according as it is idiopathic or primary, or symptomatic, or secondary. The first species often depends on a hereditary predisposition, which is seldom cured or eradicated. The second species may be violent and repeated, and speedily destroy life; or become habitual, and cause deafness, blindness, dumbness, paralysis. When it is caused by excessive hemorrhage, local irritation, moral emotions, as fear, terror, disgust, &c. it often proves fatal to young infants or children.

It is always difficult, and often impossible to cure the idiopathic species of epilepsy. When it is essential or idiopathic, and the infant is robust, general and local bleeding will be useful, with purgation and low diet. Setons, issues, counter-irritation, blisters, antimonial ointment, &c., followed by antispasmodics, opium, valerian, musk, camphor, zinc, iron, &c. may be cautiously employed. The ammoniated copper is also a valuable remedy. I have successfully treated some cases from the age of seven years to puberty, with strychnine in very small and increased doses.

When there are signs of debility, quinine, tonics, ferruginous preparations, nutritious aliment, and all hygienic means are beneficial.

In these cases, caused by mental emotions, we ought to inspire confidence and courage, and improve the general health. The infant or child should never be left alone at night, nor in the dark. Nurses are in the habit of frightening children by threatening them with horrible objects, and the result may be convulsions, epilepsy, idiocy, or death. I have known an infant of three years of age frightened to death, by the nurse covering herself with a sheet, and addressing it in an hoarse sepulchral voice. I was lately consulted by my friend, Mr. M'Can, of Parliament-street, about a female child, aged six years, who became an idiot from having been frightened by a nurse, and all the functions of the body were imperfectly performed.

In cases of sympathetic epilepsy, the exciting causes, or the disease which produces it, ought to be removed—as worms, effusion into the brain, &c. &c.

Agrypnia—Insomnia of Infants.—A thousand causes of irritation induce want of sleep in infants. It has been remarked that those

born of nervous or melancholic parents are very watchful, sleep little, and are easily roused by the slightest noise. Insomnia with these, is almost constitutional. In general, however, it is but a symptom of some other disease, as disorder of the digestive organs, caused by bad breast milk, or improper diet of the nurse or infant, which may induce griping, colic, vomiting, hiccup, flatulence in the stomach and bowels, diarrhœa, or obstinate constipation. All acute and painful diseases may produce it—fevers, inflammations, irritations in any part of the body, as worms, &c.

It is, therefore, evident that the *treatment* must be varied according to circumstances. The exciting cause ought to be removed, and the aliment of the nurse or infant properly regulated. It is a bad practice to have recourse to narcotics or soothing syrups until the cause is removed, and even then, they must be given with great caution.

Some infants, on the contrary, have a great tendency to sleep; and these are generally predisposed to determination of blood to the head, and to hydrocephalus or other diseases of the brain. Obstinate costiveness is also a common cause of this disease. Many children have very disturbed sleep, or night-mare (incubus), in consequence of being over-fed at bed hour. When the stomach is distended, the diaphragm cannot fully descend, the lungs are not sufficiently expanded, the respiration becomes laborious or difficult, the return of the blood from the head is prevented, the patient sighs or moans, the countenance is distressed, and the face, neck, and chest, are sometimes covered with sweat.

The *treatment* consists in moderate purgations, diminution of food at the approach of bed time, placing the infant on the right side, so as to favour the passage of the contents of the stomach through the pylorus, or lower aperture of the stomach, into the intestines. In addition to these means, the head and shoulders ought to be elevated, so as to facilitate the return of blood from the head; and when this part is large, the hair abundant, and the superficial veins easily distended, the application of a suitable number of leeches behind each ear and to the nape of the neck, and the means advised for encephalitis, apoplexy, and hydrocephalus will be necessary. Lastly, there are some infants from the age of three to seven years, who are subject to starting suddenly from sleep, and expressing dread or horror at external objects which they have seen or been frightened by. Parents and nurses too often induce this disorder by telling frightful tales, about ghosts, robbers, murders, &c., threatening children, or confining them in dark solitary situations.

The indication of *treatment* is to soothe the mind, to improve the general health by tonics and other appropriate means, which I have seldom observed to fail of success.

Reviews.

The Obstetrician's Vademecum; or, Aphorisms on Natural and Difficult Parturition; the Application and Use of Instruments in Preternatural Labours; on Labours complicated with Hemorrhage, Convulsions, &c., &c. By Thomas Denman, M.D., Licentiate in Midwifery of the College of Physicians, London; and Honorary Member of the Royal Medical Society at Edinburgh. Considerably Augmented, and Arranged according to the Present State of Obstetricy, by Michael Ryan, M.D., Member of the Royal College of Physicians, London; Professor of Medicine and Obstetricy at the Medical School, Gerrard Street, Soho Square, &c. &c. Ninth Edition. Illustrated with Seventeen Plates, and a Portrait of the Author. 12mo., pp. 231. London: E. Cox. 1835.

Manual of Practical Midwifery: Containing a Description of Natural and Difficult Labours; with their Management. Intended chiefly as a Book of Reference for Students and Junior Practitioners. Illustrated by Fifteen Engravings. By James Reid, M.D., M.R.C.S.L. and E., &c. 12mo. pp. 246. London: Churchill. 1835.

THE first of these works is long known to the profession in all countries, and the merits of the new edition need only be placed before our readers by presenting to them the editor's preface:—

“ Dr. Denman's Aphorisms on Obstetricy have passed through eight editions. He was the most eminent obstetrician of his age, and is justly acknowledged as such wherever medicine is cultivated. There never was a physician whose practical opinions were more generally adopted. His works are of standard authority and reference.

“ The following pages were the result of his extensive experience and careful observations. The principles and practice recommended in them, are most admirable and instructive. The justly celebrated author, actuated by that diffidence characteristic of great minds, offered to the world, in this work, a partial and imperfect view of his practical conclusions. He had given all his views in his Introduction to Midwifery.

“ In this little work, he confined his observations to ‘The Application and Use of the Forceps and Vectis, to preternatural Labours, and Labours attended with Hemorrhage and Convulsions.’

"So far as the aphorisms extend, there could be none more judicious or excellent. They are not, however, sufficiently comprehensive, nor could they contain the vast improvements made in the practice of obstetrics, which have been discovered since the decease of the revered author.

"The editor has therefore deemed it advisable to make the necessary additions, and to arrange the work according to the present state of obstetrics. He has considered it essential to prefix the anatomy of the pelvis, and the mechanism of natural parturition, without a knowledge of which, no one can perfectly understand the precepts of the author.

"He has given a minute description of the duties of the obstetrician, male or female, and the assistance which ought to be afforded during natural and difficult parturition. He has fully described the use of the ergot of rye, which possesses the power of expediting labour, and which was not employed in the time of Dr. Denman. He has also explained the methods of managing the numerous causes which retard parturition, but of which the author had only given the heads. He has also appended copious notes to the text, where these were required. He has explained more minutely than the revered author, the methods of applying and using instruments, and the numerous cases in which these are required. He has further described the manner of performing all obstetric operations, as craniotomy, symphyseotomy, gastrotomy, transfusion, &c., which were omitted by the author. He has, on some occasions, differed from the text, as on spontaneous evolution, which all modern obstetricians consider as the only objectionable and untenable part of Dr. Denman's valuable production.

"In fine, the editor has thought it his duty to add every doctrine and practice which are now universally adopted, and to render the work, which he was requested to revise, as complete as the present state of obstetrics admits. Whether he has succeeded in executing the task he has undertaken, remains to be determined by his professional brethren. The publisher has gone to considerable expense in illustrating the work with beautifully executed copper plates, and offers it to the medical public on the most moderate terms.

"This little volume has been designated the 'Obstetrician's Vademecum' by the editor, and contains all the practical precepts in modern obstetrics. Every medical practitioner who engages in this branch of practice, will find it a valuable companion at the bedside; but it by no means supersedes elementary or systematic works on the same subject. It describes, as concisely as possible, every case, and its treatment; but it does not contain the reasonings and facts which have led to practical conclusions. These must be sought for in elementary or systematic works. It is scarcely necessary to observe, that it is

impossible to include the matter of a large octavo volume in 235 pages duodecimo, nor did the editor attempt it. His object was to add to the original work, and render it what it was intended to be, and really is, a pocket companion for the lying-in room, and not a treatise of reference. In further proof of this statement, the reader may be reminded, that Dr. Denman did not intend to supersede his large work by the publication of the present little volume; as the works are totally different—do not in the slightest degree interfere with each other. The one is a vademecum, the other intended for the study, and for deliberate reference. In fine, it is right to observe, that all the editorial additions are included in brackets, and the initials of the editor added both in the text and notes."

The second work, whose title we have inserted above, was commenced while Denman's Aphorisms were passing through the press. The profession will form a correct estimate of their respective merits. We shall, however, offer our opinion on those of the latter production.

Dr. Reid thus proceeds in his preface:—

"The author has long been impressed with the belief, that notwithstanding the many voluminous and valuable works on Midwifery already published, there yet exists a deficiency in one respect;—indeed, he has frequently heard students, and those just entering on the arduous practical duties of the accoucheur, complain of the want of a work, which, while it should include all the information that might be necessary in the moment of doubt and difficulty, could still, from its size, be portable, and easily referred to, at the precise time when assistance is so anxiously required, and delay might be so perilous. Denman's excellent Aphorisms answer, to a certain extent, this object; but they are, perhaps, *too* limited, and as they refer principally to cases in which the use of the forceps is required, they do not fully attain the end proposed.

"It is with a view to supply this deficiency, that the author ventures to offer this little work to the notice of students and junior practitioners. It is almost exclusively confined to the department of Tokology, or Labour. The subjects of Conception, Menstruation, Diseases of Utero-gestation, and some others, are necessarily excluded, as the introduction of them would, if treated at sufficient length, have increased the size of the work far beyond the prescribed limit; moreover, as they do not demand so urgently the immediate assistance of the practitioner, they might, perhaps, have been foreign to its object.

"The wood engravings which are inserted with the letter-press, have been introduced for the purpose of illustrating those facts, on the knowledge of which the most important

practical rules are founded, and of which, in many instances, language conveys but an inadequate and vague notion: they are taken, with some alterations, from the plates of Smellie, Maygrier, and Velpeau.

"The author has made use of the tables drawn up and published by several eminent obstetric authorities, showing the detailed results of a very large number of cases, and he has added a similar return of a considerable number which have fallen under his own notice or superintendence, during the last four years and a half, in a somewhat extensive field of observation, afforded chiefly by the practice of two large parishes—St. Giles, and St. George, Bloomsbury. These statements occupy small space, but it is hoped may be useful, as tending to give a just idea of the relative frequency of the various presentations, or accidents, during labour, which may be met with in the course of practice.

"In the composition of the work, brevity and plainness of language have been kept always in view—attention being directed rather to distinctness of explanation, than to any attempt at laboured elegance of style."

This work is well executed, so far as it goes, but is too concisely written. It was intended as an improvement on Denman's *Aphorisms*, but in many respects far inferior to them. Thus, there are no directions given for the use of the lever, although many practitioners prefer that instrument to the forceps. The whole work is far too concise and particularly the practical part. The wood-cuts are miserably executed, and often inaccurate in many parts. Nevertheless, this little volume contains a great deal of useful information, in a small space. But, let us prove the justice of our censure on the plates. In page 5, is an illustration of the outlet of the pelvis. The representation is that of a deformed and not of a normal outlet. If the author can quote any work, or illustration in any standard treatise, we can only say, we have never seen such, nor do we believe it exists.

Fig. 3, in page 22, is a caricature of the os uteri at the ninth month of pregnancy.—(See the plate of Maygrier).

The fig. in page 54, is a bad copy of Smellie's—the vagina is of an inky black colour.

The fig. page 27, representing the natural presentation of the head is also faulty, as the face is represented as removed from the sacral concavity.

The fig. in page 60, represents the forceps applied when the face is towards the pubes, and the occiput in the sacrum. The opposite or natural presentation ought to have been

illustrated before this one. The directions for performing catheterism, are by no means so minute as they should be, and in our opinion, not one student in a thousand could pass the catheter according to them.

We should be sorry to be hypercritical, but we hate to see the word *child* used for infant throughout this work. Every midwife calls a new-born infant a child, and so do the majority of practitioners in this country. There is, however, a physiological distinction between the term infant and child, that ought to be maintained in scientific works.

The directions as to the performance of instrumental operations, are by no means sufficiently explicit, clear, or instructive. A well-educated obstetrician would understand them, but nobody else.

In page 146, is the representation of a brachial or arm presentation, in which the external genital fissure is delineated as like its normal condition as the moon. The position of the arm and shoulder does not warrant the excessive dilatation and elongation of the os externum, and we should advise the author, when next he calls on the artist, to nail his ear to the pump nearest his residence.

The next article is on Spontaneous Evolutions, the only bad thing that Denman ever published. It has misled many of the profession, and ourselves among the number. Sober and careful observations have since led us to conclude, that to wait for the spontaneous evolution at the full term of pregnancy, would be sacrificing the infant, and in almost all cases the mother. When version cannot be accomplished, and spontaneous evolution does not occur, Dr. Reid cites the authority of Dr. Robert Lee, in favour of amputation of the arm, and evisceration of the infant. We have also performed this operation, but recent reflection has convinced us that it is scarcely ever necessary in transverse presentations, if bleeding, opium, tartarized antimony, and tobacco enema, be fairly employed. We must draw our strictures to a close.

In the preceding remarks we may appear too severe on the author; but we may state we have not the pleasure of his acquaintance, and we treat his work as it deserves. We censure certain parts of his manual as a text book for students, because it is calculated to mislead them. Had there been no

wood-cuts, it would be a useful manual. It contains a vast deal of instructive information. We must observe, however, that the author has borrowed very freely from his contemporaries, without using those little crooked marks, called inverted commas.

Should his work pass through a second edition, we have no doubt but he will take the hints we have given him.

It is our opinion that Dr. Reid is exceedingly well acquainted with the science and practice of obstetrics, but that he has failed, on account of his extreme conciseness, to enable students or young practitioners to comprehend his precepts, is obvious. His manual is a good memorandum for well educated practitioners, but certainly not for those commencing the profession, and much less for apprentices, who can know nothing of the subject; and there are many such, before they begin to attend lectures.

—o—

ON SUPPURATION.

A Paper read before the Medical Society of the London University. By THOMAS MORTON, Esq., M.R.C.S.

THERE are few subjects in pathology, concerning which more numerous and extraordinary opinions have been at various periods advanced, than concerning the formation, nature, and uses of pus. That it is a subject highly interesting in itself, and greatly deserving the attention of either the physician or surgeon, will, I have no doubt, be freely admitted, when we consider the great number of its shades and differences, as exhibited under various circumstances—the curious and important local phenomena exhibited in its formation, together with the dangerous and fatal results which are not unfrequently induced by its existence.

We are accustomed to give the name of pus to several species of fluid, which differ greatly from one another in their physical, probably also in their chemical, and certainly in their specific properties. Thus we have what is termed laudable pus—a fluid, bland, homogeneous, likened to cream in its consistence, of a yellowish white colour, insipid taste, and nearly devoid of any odour, un-irritating to the human body. Or when it is mixed with blood, thin and fetid, and irritates the surrounding surfaces over which it may flow, we recognize it by the term Sanies, Ichor, &c. We may have it loaded with sulphuretted hydrogen, and other chemical constituents, as in scrofula, where the pus is usually found to contain more of soda, and muriate of soda, than in that se-

creted from the body of a healthy individual.

Again, what remarkable and striking properties do we not observe pus to possess, secreted in the system when labouring under certain diseases; for example, gonorrhoea, syphilis, small-pox, glanders, plague, and many others? There is no subject which shows so much or so clearly the insufficiency of chemistry as applied to the elucidation of pathological physiology than the total absence of any useful results from the careful attention which has been paid by different observers to the analysis of pus. Sir E. Home subjected pus to the most careful examination. He states that it is made up of two principal elements—one of which is a transparent watery fluid, somewhat resembling the serum of the blood, and the other consisting of opaque globules. The latter he considered as the essential constituent of pus. Added to these are certain salts of soda and of lime, some albumen, &c. But we derive very little advantage from this knowledge in our pursuit of the inquiry in what manner, and by what means pus is formed in the living body; for the same elements are found to exist in nearly the same proportions in many other fluids of the body, which possess no analogy whatever to pus in their properties and qualities. It would have given great interest to the analysis, could we by such means demonstrate wherein the specific properties of the fluid reside. But such success hitherto has not followed the labours of the chemist, though it may not be absurd to hope, that at some future period, as the science is so rapidly advancing to perfection, a further knowledge may be attained.

We come now to the consideration of the mode or process by which pus is produced in the animal economy.

Suppuration implies life; for no pus can be formed in the dead body—parts which are dead may become the seat of putrefaction but not of suppuration. Thus we see every day, that when any portion of the body is destroyed either by mechanical violence or by chemical agency, it is not in the dead, but in the adjacent living surfaces that suppuration is established. The opinions of writers may be reduced into two classes: 1. “That pus is formed within the vessels of an inflamed part by an action of these vessels upon their contents, similar to what takes place in secretion.” The other, “That pus is formed without the vessels of the part inflamed, by a change taking place either in the solids affected with inflammation, or by a change in the fluids extravasated, similar to what occurs in fermentation or putrefaction. The most ancient doctrine attributed the formation of pus to a species of coction, or putrefaction. Hippocrates says, “Suppurantur autem ulcera, alterato et califacto sanguine, donec putrescens talium ulcerum pus fiat.” Boerhaave taught

that pus was formed by the dissolution of the solid constituents of the parts attacked by inflammation, which went on to suppuration.

Vorduc to the admixture of chyle, with a variable proportion of blood, and the remains of the ruptured vessels.

Heister conceived that in those instances where inflammation did not admit of resolution, the gorged capillaries of the part were burst by the force of the circulation, and that the fluids thus extravasated in the adjacent tissues became putrid—causing the tissues themselves to become putrid also—consequently that in his opinion pus was the result of the heterogeneous admixture of the various elements which he in this manner supposed to take place.

Grashius said that pus owed its origin to an alteration, or change impressed on the fatty parts of the body; for, observing that in long continued and extensive suppurations there is generally a remarkable loss of flesh, he thought that the fat must have disappeared under the form of pus. He concluded that suppuration had its seat in the cellular tissue, and that the fat is the principal element which enters into the composition of pus. Pringle imagined that pus was produced by a putrid fermentation, and that the element which chiefly assisted in its formation was the serum of the blood. De Haen held that pus was elaborated from the arterial blood whilst it was circulating in the vessels, and that it was deposited ready formed under the form of abscesses, or the discharge from exposed surfaces, &c.

Towards the end of the last century the opinion that pus is produced by an action of the capillaries of an inflamed part, analogous to secretion, was first introduced by Dr. Simpson of St. Andrews, Dr. Morgan, and as we have already observed, De Haen supported somewhat similar views with regard to suppuration. About this time the illustrious Hunter turned his attention to the subject, and to his labours we are indebted for much that is known at the present day. He says, "Pus is not to be found in the blood, similar to that produced in the first stage of the process of suppuration; but is formed from some change, decomposition, or separation of the blood, which it undergoes in its passage out of the vessels, and for effecting which the vessels of the part have been formed." "That we must look upon it as a new combination of the blood itself, and must be convinced that in order to carry on the decompositions and combinations necessary for producing this effect, either a new or peculiar structure of vessels must be formed, or a new disposition, and, of course, a new mode of action of the old must take place. This new structure or disposition of vessels, I shall call glandular, and the effect or pus, a secretion."

The present doctrines concerning suppuration embody many of the principles of the

more ancient—chiefly inclining, however, to that class which regards the process as analogous in many respects to secretion. I shall presently revert to their consideration after having shortly noticed one or two other points connected with the subject. It has been frequently disputed whether inflammation is necessarily antecedent to, or coincident with the production of pus. Is pus ever formed, under any circumstances, without some inflammatory condition of the part affected having existed previously? De Haen held that suppuration might take place without any previous inflammation. He alleged that pus might be formed by the mere existence of what he chose to term a purulent diathesis. But this is a position not easily acceded to, for it assumes on the existence of a condition of the system, of which we have no positive and satisfactory proof. In the greater number of instances where pus is formed, there is sufficient evidence of the existence of inflammatory action, commonly in the part affected, though occasionally at a distance from it. At the present day the opinion that inflammation always precedes the formation of pus is generally adopted as the established one; it is one that John Hunter strenuously contended for; he says no suppuration takes place which is not preceded by inflammation, and that pus is never formed but as a consequence of it. Some have held that collections of matter may be formed without inflammation, and they instance those cases of visceral abscesses, and other purulent collections common after phlebitis, injuries of the head, severe operations, as amputation, &c., in support of the opinion. It is true that in these cases it is difficult, perhaps impossible, always to demonstrate the existence of inflammation of the parts in which the pus is formed; yet I think we shall be able in a future part of this paper to adduce satisfactory reasoning that inflammation has a real if not an apparent influence in this production. One argument in favour of the opinion that inflammation precedes suppuration as a cause is, that if the inflammatory condition can be early subdued no pus is ever formed. Again, if inflammation exceed in violence a certain point, pus will not be formed, but the part dies—becoming affected with gangrene, but after a while, when the inflammatory action begins to diminish in intensity, then a change is observed to take place, and in exact proportion to the gradual subsidence of the inflammatory symptoms, do we notice the successive steps taken towards the formation of matter. Hence that rule in surgery, that we may always derive considerable information as to the probable results of a case of mortification, by closely observing the character of the discharges, the most favourable symptoms of the cessation of the disease being the appearance of true healthy pus. Broussais considers pus is the result of certain changes induced in the

gelatinous and fibrinous particles of the blood, by some peculiar action of the capillaries of an inflamed part. Suppuration, according to him, cannot occur, except the inflammatory action be intermediate in its intensity between that which induces mortification of the part, and that congestive state or condition usually termed chronic inflammation. For example, when a wound is attacked by violent inflammation, the discharge of pus is stopped, and bloody fluid, little resembling true pus, is secreted in its stead, and before we can establish a healthy suppuration, we must, in the first place, reduce the inflammatory state of the sore. On the other hand, we may remark that many scrofulous, and other sores of an indolent nature will not suppurate kindly, until some strongly irritant substance has been applied to the part, so that we purposely excite an increase of action, resembling, probably identical, with what occurs in inflammation.

It was a question long agitated by the profession, whether there is a real loss of substance in the organs or tissues which are affected by suppuration. The ancients contended that such was actually the case. They supposed that every purulent discharge from the several cavities of the body, from the respiratory, digestive, or urinary organs, was a sure indication of the existence of ulceration of some portion of their surface, and that the extent of the ulceration was to be estimated by the quantity, and quality of the discharge. So much was this the case, that great exertions have been made to ascertain a knowledge of some certain test whereby we might distinguish between pus, and other fluids which might resemble it, but more particularly from mucus. Dr. Young and Dr. Darwin, jun., are both celebrated for their experiments to establish distinctive marks. The former introduced the practice of deciding the character of the expectoration of phthisis by an optical experiment. As pus contains globules, if the suspected fluid be placed between two plates of glass, and viewed against the light, and a corona of variegated colours be observed, then it is pus; but if instead of a bright rainbow tint, we only observe an opacity, then it is mucus. Dr. Darwin established certain chemical tests. He gained great fame at the time by his paper on the mode of distinguishing pus from mucus, published in 1778. These tests however have lost all their value, and sunk into neglect in consequence of the change which has taken place in the opinion that suppuration is necessarily an effect of ulceration, and therefore a proof of its existence. At the present day all agree that pus is often formed in the largest quantities without ulceration, or loss of substance. Dr. W. Hunter was among the first to establish this fact. He relates a case in the 2nd vol. of the *Med. Obs. and Enq.*

It has been said that there are cases in which suppuration appears to be accompanied with actual loss of substance. Thus we may cite the case of an inflamed gland. During the commencement of the attack, it is immensely swollen, forming a very large and dense tumour; but as soon as suppuration is established, it softens where it bursts, or is opened, and decreases in magnitude; and often when the suppuration has been very complete, the gland seems to have disappeared altogether. Another case brought forward, is the extensive destruction of the texture of a lung, which is frequently observed in advanced cases of pulmonary phthisis, when the lung is a mere bag, containing purulent fluid. If these examples, together with many others, do not prove that in such cases suppuration is accompanied with true loss of substance, they may be said at least to give an air of probability to the opinion that this is the case.

It might however be asked, does the apparent loss of substance arise from absorption, or from the nutrition being impeded by the pressure of effused matter, or from both these causes acting in concert, rather than from the conversion of the texture of the organ into pus?

Present Opinions of the Mode by which Pus is formed.—It was mentioned, in a former part of this paper, that John Hunter strongly advocated the doctrine that pus was always preceded by inflammation, and that suppuration was an effect of such inflammation. He describes the process thus, that when inflammation has been fairly established, there succeeds to the vascular congestion an effusion of serum, followed by that of coagulable lymph; and last of all pure pus is thrown out—all of these phenomena being frequently observable on the surfaces of incised wounds, and of serous membranes. Though Hunter does not say precisely how far he might have ascertained the exact changes which took place in the formation of pus from the blood, yet from his expressions, there can remain no doubt of such having been his opinion. His words are, "This matter (*viz.* the discharge which accompanies the suppurative stage) is a remove further from the nature of the blood, and becomes more and more of the nature of pus." That pus is formed from the blood, within the vessels of the part inflamed, by an action of these vessels, similar to that which takes place in secretion, is I think proved, by observation of the fact, that in inflamed mucous membranes, pus exudes directly from the affected surfaces, from inflamed cutaneous texture, and from the cellular substance, when in the state of healing by granulation. In these three surfaces there can be no doubt of its being formed in the vessels from which it exudes; and from this it follows that we are not warranted in supposing that the pus constituting in-

ternal suppurations is formed in a different manner.

According to the latest observations, the process by which pus is formed as a consequence of inflammation, is the following:—

“When inflammation is excited in a web of a frog’s foot, or other transparent and vascular membrane, the capillaries are observed to become gorged with the red globules which have ceased to circulate; the part is of a uniform red colour, serosity, coagulable lymph; if the inflammation be severe, blood itself is thrown out of the vessels into the surrounding cellular tissue; the part loses its transparency, and is opaque. Shortly the red colour of the part begins to diminish, and soon disappears altogether; a yellow granular looking matter occupies the capillaries, and surrounding cellular tissue. In the centre of the inflamed part, several of the capillary vessels which were before obscured by extravasated blood, begin to reappear, some containing reddish, and others reddish-grey globules. These gradually become more and more distinct, increase in number and size, begin to move slowly, and traversing the capillaries, arrive at the surface of the tissue, or at the edges of the solution of continuity, if this has occurred in the form of globules of pus.” Such is the account given by Dr. Carswell of the process.

Gendrin has very carefully examined the whole of the process in the frog’s foot and mesentery, and he arrives at nearly the same conclusions. He states to have distinctly seen the globules of blood which had loaded the capillaries lose their colouring principle, and become opaque, gradually assuming the yellowish grey colour peculiar to pus, and that gradually moving towards the wounded, or irritated surfaces, either in the capillaries, or in newly formed vessels, finally acquire all the physical properties of perfect pus.

Kattenbrunner agrees with these accounts, but adds that he has observed some of the solids of the diseased part to become converted into pus; that some of the granules of the parenchyma separated from the rest, entered vessels prepared for their reception, and mixing with the globules derived from the changes which have been described as occurring in the blood, assist in the formation of true pus.

From these observations we are led to the conclusion that pus is derived from the blood, which is arrested in the capillaries during inflammation; that the capillaries are the seat of this conversion; and that these vessels conduct the globules thus modified to the exterior, where they are found combined with the serum of the blood, in that particular form which we are accustomed to designate pus.

This is one of the modes by which pus is formed, yet there is another, the ignorance of which has produced the greatest con-

fusion, and given rise to most erroneous doctrines upon this topic. It is the formation of pus under circumstances by which the influence of the capillary system, as exercising a function of secretion, can have no existence.

Dr. Carswell terms it “*Extra vascular.*” It was before observed that in the inflammatory condition of any part which is about to be followed by suppuration, there is an effusion or extravasation of a certain quantity of blood into the cellular tissue of the part so affected.

For indeed in every case of severe inflammation of the cellular tissue, a great proportion of the swelling and induration is owing to the presence of effused blood. A section of any part in the state of high inflammation shows that this is really true.

The same changes, then, take place in the blood thus extravasated, as we have already noticed, as occurring in the blood, which is stagnated in the capillaries of an inflamed part; viz. gradual change of colour, from red to yellowish-grey; the globules in each case becoming opaque, acquiring an increase of bulk, and gradually advancing to the surface of the part, either in the original, or newly formed vessels, in the form of pus. Dr. Carswell states that he has observed this to have actually occurred under his own inspection, in cases where inflammation has followed the effusion of blood into the cellular tissue, as a consequence of contusion or other mechanical injury. He has also frequently noticed it in cases of phlebitis, where the blood has ceased to circulate on account of the obstructed circulation induced by an inflamed state of the interior of the venous system. Gendrin has made a direct experiment which admirably supports this view. “If,” says he, “after having injected a quantity of blood into the cellular tissue of a part, we pass a seton through the same part, so as to excite a certain degree of inflammation, the blood is rapidly converted into pus, just as though it had escaped ready formed from the vessels of the part.”

We can also demonstrate this conversion of blood into pus, by recurring to the phenomena which are observed to occur in phlebitis. When the inflammation of a vein has attained a certain height, its function is suspended; the blood, which is contained within its interior, no longer circulates, but becomes coagulated; and it is at this stage that we observe the hardness, and cord-like feel usually described in treatises as one of the distinguishing characters of inflammation. At a more advanced period of the disease, the hardness disappears, and if we submit the vein to ocular examination, we will find that the change is owing to the presence of pus within its interior. The gradual change of blood into pus has been carefully noticed in cases of phlebitis, the blood being found, in different stages of the

transformation, in different parts of the same vein, and even in different veins. There is an experiment of Gendrin which is very satisfactory in support of this statement.

Having interrupted the circulation in a vein or artery, for an instant, he then injected a caustic solution, and retained it for a minute space of time, and then withdrew it; this done, the blood was again admitted, and retained between two ligatures: he found that inflammation was excited, which ran on to suppuration.

"The contained blood, having become coagulated, loses its red colour, and is progressively changed into pus. This conversion of blood into pus, can, he affirms, be followed by the eye between the layers of the coagulum, and by the aid of the microscope, may be observed in the molecular or globular structure of the fibrine."

From these observations, it follows that in these instances the capillaries could have no share in the conversion of blood into pus. Yet in all, we notice the precise order of sequence observed in the succession of the changes which occur in the parts affected with inflammation. Hence it follows that the formation of pus cannot in all cases be confined to a morbid process induced in the capillary vessels by inflammation, and the subsequent separation of the elements of this fluid from the blood. Yet it cannot be doubted that inflammation is the common origin of the production of pus, because we see the same succession of changes occurring without variation in both; viz. the cessation of the circulation, the coagulation of the blood, and the conversion of the fibrine, or globular structure of the fluid, into pus. The globules of pus are observed to appear in the fibrine of the blood, which had become deprived of its colouring matter after having been brought to a state of stagnation in the capillaries, in venous and arterial trunks and in lacerated extravasations formed in the cellular tissue.

It was mentioned before, that though inflammation was allowed by all to be the real cause of the formation of pus, in the generality of cases, yet there were some instances in which this cause did not appear to have been in operation. For instance, in those cases recorded by Andral and a few others, of pus being detected in the centre of coagula contained within the heart, but not possessing any organic connexion with its lining membrane, and consequently beyond the influence of any pathological condition of the heart; cases of visceral abscesses, collections of pus within the synovial capsules of joints, which are occasionally met with after severe compound fractures, amputations, &c., &c. It is explained by a more careful inquiry into all the circumstances of the cases wherein pus is thus found; for in all that are on record there has always been satisfactory evidence that inflammation followed by suppuration had previously ex-

isted, to a greater or less extent, in some distant part of the system. We may cite a few of the most common of these coincidences: fractures, where there is always more or less laceration of the soft parts by the broken ends of the bone; operations, in which parts of the body have been removed; phlebitis after venesection, and by the exposure of the interior of the uterine vein; the separation of the placenta after delivery in childbirth. In all these instances pus has been first formed within the veins of the injured part. It has been found in the smallest veins, and also in the largest, as the femoral, the iliac and their contributory branches, and even in the cava itself. In these cases, it is worthy of notice that pus is not observed within the arteries. Dr. Carswell states, that in all the cases which have come under his notice, there was always an evident communication maintained between the diseased vein or veins with those that remained healthy. We have, then, a pretty satisfactory chain of evidence. Let us take the case of visceral abscess occurring after amputation of the thigh—we have phlebitis of the femoral and iliac veins. This is followed by the formation of pus in their interior, but there is no distinct obstacle to the circulation of this pus along with blood of the part, and hence we are warranted in assuming that the pus thus formed is carried into the adjoining veins, and by them carried into the general circulation. It is agreed by all that the pus so formed is carried into the general circulation, but a difference of opinion is held as to the exact mode in which this transportation of pus is effected; some, as Velpeau and others, alleging that the pus is absorbed from the surfaces on which it is first secreted, and carried by the lymphatics into the circulation. Others, again, contend that it is not by the absorbents, but through the medium of the veins themselves, that the pus reaches the circulation. In favour of this last opinion, we may urge the great probability which attends its existence, and the advantage that it possesses over the former by the absence of assumption—for the former implies a more intimate acquaintance with the nature and functions of these vessels than we really possess: whereas, in the latter, we have as it were the whole process actually exposed to our view—for we see pus present within the veins, and a perfectly complete communication of those with the rest of the venous system. Again, we may urge, that we frequently find abscesses and other collections of pus disappear by absorption, without any such ill consequences as those now under consideration ensuing. May not, then, the pus, carried in this manner into the general circulation, excite a diseased action in whatever part of the body which at the time may, from the influence of either constitutional or local causes, be less able to resist it, which may be brought to bear upon it?

The opinion that pus circulating with the blood is the cause of these visceral abscesses, &c., is strengthened by the consideration of the peculiar character of the constitutional symptoms which occur towards the close of this fatal disease;—the sudden attack, the great prostration of strength, the disturbance of the mind, the altered colour of the skin, fetor of the breath, &c.—all which symptoms may be produced at pleasure, by injecting pus and other putrid fluids into the veins of animals.

Suppuration, in common with almost every other function of the animal economy, is liable to be influenced by all agents which act upon it, whether moral or physical: it may not only be deranged, but even suspended, by their operation—thus affections of the mind, but especially those of a depressing character, a disordered condition of the digestive organs, the presence of foreign bodies, as portions of diseased bone, musket balls, splinters, &c., an attack of fever, and many other local and constitutional affections, all exercise great powers over this operation of the system, and consequently deserve the careful attention of the surgeon. It is, indeed, very difficult to account why one sore suppurates in the most healthy manner, while another, in the same individual, and perhaps not far apart from the former, secretes matter of the most unhealthy description. Do we not see contagion connected in some inexplicable way with the matter produced by suppuration? Has any one, as yet, been able to give an explanation of this connexion, which is at all satisfactory to our understandings? Can any one point out in what the pus secreted by a contagious sore differs from that discharged from a healthy ulcer? If we operate on, or wound parts which are in a state of inflammation, when the capillaries are gorged with blood, we run a risk of putting a stop to suppuration altogether, and incur a chance of mortification, or we may very much disturb its due progress. So much so is this the case, that the surgeon carefully avoids performing amputation, or other important operations, so long as the parts which he must divide are in a state of inflammation (Case in ward 2). We find that exposure of the suppurating surface to the air acts very injuriously by altering the nature of the pus secreted, causing it to degenerate in its qualities, and become irritating to the adjacent surfaces. To avoid this the surgeon takes the precaution to protect, as much as is possible, ulcers and other suppurating surfaces from atmospheric influence by the interposition of dressings. It is a general opinion, that the dangerous and frequently fatal results which take place after the opening of large collections of purulent fluid, as psoas, abscess, &c., arise from the admission of air into the secreting cavity, the internal surface of which it irritates, inducing a total alteration in the

properties of the discharge, so that the constitutional irritation consequent upon this depreciation, in the majority of instances, quickly brings the patient to his grave.

We observe that suppuration is, in some degree, under the influence of the tissue by which it is secreted. We seldom observe tendinous or ligamentous structures to become the seat of suppuration. The cellular and adipose tissues are those that are most liable to this affection; but, as a general rule, we find that the more vascular a tissue, the more prone is it to fall into a state of suppuration under the influence of the slightest causes. Thus the mucous membranes are very commonly observed to secrete pus in large quantities under the agency of causes which would have no power over many others of the elementary tissues.

Pus has been supposed to be possessed of very acrid properties, but now it is well established that pus is altogether devoid of any irritating influence over the surface which secretes it. Pus, however, may, and often does, irritate the surfaces adjacent to that which secretes it; but this is no more than we observe to take place with regard to many other secretions; thus the tears secreted during many morbid conditions of the lacrymal apparatus never irritate the conjunctiva, though they may excoriate the cheeks over which they flow. The urine never irritates the kidney nor bladder, though it induces inflammation and gangrene when effused into the scrotum in rupture of the perineal portion of the urethra, or when it is involuntarily discharged in cases of paralysis.

The limits to which suppuration may extend are very indefinite, for it may continue one day, or many days; nay, weeks, months, and even years. Hence writers have been accustomed to describe two leading varieties of suppuration, viz. acute and chronic.

The process of suppuration, particularly when it occurs in the internal parts of the body, is often accompanied by constitutional symptoms, which indicate its existence in a manner almost unequivocal. This would lead to the consideration of hectic fever, but time will not permit me to enter on that portion of the subject.

—o—

A Letter to Lord John Russell, Secretary for the Home Department, in reply to the first report to his Lordship of the Poor Law Commissioners, upon the subject of Medical Attendance on the Poor. By George Bottomley, Surgeon, Croydon.

10th December, 1835.

MY LORD—I trust I shall be pardoned for addressing your lordship upon a most important subject, as regards a very large proportion of the industrious population of this country—I allude to the medical and surgical attendance upon the poor. I believe there is

not a set of men more anxious to afford relief to that class at all times, nor can there be a better feeling than exists between the medical attendants and the poor under their care; which must, of course, prove, that the latter are generally attended to in a manner satisfactory to themselves. The Poor Law Commissioners, in their first report to your lordship, make a most unwarrantable and unjustifiable attack upon that class of medical men who enter into contracts for attendance upon the poor. They state that medical men are in the habit of taking a very low contract, with an understanding, that they are allowed to make whatever charges they may think proper, for paupers under suspended orders; that their charge for medicine is at the highest rate, and against such charges, the parish to which the pauper is removed has not any protection; and that the pauper has been drenched with medicine, considerably beyond what was necessary; and that in some populous parishes the profits upon orders of suspension have exceeded 300*l.* per annum; and that the inferior officers have been bribed by the medical attendant to search out and give information of such cases; that paupers, with their families, have been removed at a great expense, when they would have preferred remaining where they were, and seeking employment in the parish where the sickness occurred; and by continuing these practices, parishes were in the habit of creating burdens for each other. Now, to all these most serious charges I feel myself called upon to reply, being one of those who for years have had the medical and surgical attendance of a very extensive and populous parish. In the first place, the salary is not in general at all adequate to the very great charge and heavy responsibility attached to such appointments. I feel confident the fault has not arisen with the medical men, but with the parochial authorities. The next is one of a most important nature: it is that of charging extravagantly, and such charges being sanctioned by the overseers, in cases of suspended orders. Such an accusation involves the character and reputation of not only the medical officers (who, I should hope, after having received a liberal education, and being connected with a scientific profession, would be placed far above such base and fraudulent transactions), but also of the parochial authorities. If the Poor Law Commissioners had discovered such a case, both the medical officers and the parochial authorities ought to have been exposed, that such medical men might have been treated with the contempt they merited; and the parochial officers should have been immediately ejected from their appointments, as unfit to hold any responsible situation in their respective parishes. If such a case has occurred, it is, I trust, a solitary one. In the next charge, which is that of distant parishes not having any protection if it should amount to a certain sum, they have the power of appealing, and I believe it is customary to send the particulars; it is a

plan which I have always adopted, that they may be shown to the medical officers of the parish to which such paupers were removed, that they may be enabled to point out, and deduct any overcharge. According to the commissioners, the charges are exorbitant. My system has been (one which I believe is generally adopted) to charge one third less than to private patients, and to send the medicine in the cheapest form, reducing the sum to about one half. The report states, "that in large and populous parishes the profits upon suspended orders exceed 300*l.* per annum." The population of the parish I attend is about 1500; the miles of road in the parish between 40 and 50; the annual amount of receipts, including salary, midwifery, surgery, journeys, and attendance upon non-resident poor, and suspended orders, has rarely exceeded 300*l.* The next charge, which is that of inferior officers being bribed by the medical officers, is too monstrous to be entertained for a moment; and as far as regards the removal of paupers; I believe it is never done, unless the removing parish derives the principal benefit from it; it is the law, and not the parochial officers that is to blame. It is a subject of great hardship to the paupers, and of serious expense to the rate payers; a subject calling aloud for the interference of the legislature.

I am of opinion that the settlement of the poor ought to be exploded, with a view of putting a stop to suspended orders, thereby preventing removals and expensive litigation; that there should be a general assessment, that the poor might be relieved from a public fund; and that there should be district establishments for the relief of the poor, and as a receptacle for the sick. As far as regards the appointment of medical officers, the plan recommended by the commissioners, and in some instances acted upon, of selecting the young and inexperienced, is both cruel and unjust; cruel to the poor, and unjust to the rate payer. Although the examinations for medical and surgical qualifications are more rigid than formerly, still such as obtain them may have superior theoretical acquirements with scarcely any practical. Would the Poor Law Commissioners like to place themselves or families under the care of such inexperienced practitioners? then why allow the poor man to be so placed? The love and affection is as great in the poor man's family as in the rich, and their lives are equally valuable—then what reparation can be made for the loss of such a life? I have as great a respect as any one for the juniors in the profession; but they must gain experience at the elbow of an experienced hand, before they ought to take upon themselves so great a responsibility. The labourer is exposed to every kind of accident, some requiring immediate and intricate surgical operations: then is it just to place such a case in the hands of one who has never before performed an operation? Would it not be cruel to the poor man, and, in the event of death, unjust to the rate

payer? as the wife and family would immediately become a heavy burden on the parish; and, in respect to the sum per head, *that* would be attended with serious inconvenience, as it then must be done by order, and the delay occasioned by the absence of the relieving officer, or the doubt he may have upon his mind about giving such order, might be attended with fatal consequences.

—o—

The London Medical

AND

Surgical Journal.

Saturday, December 12th, 1835.

—

THE LONG DESIRED METROPOLITAN
UNIVERSITY. JUBILATIONS OF THE
LIZARD.

Quem Deus vult perdere prius dementit. The Green Lizard is clean distraught. Will it be believed that this infatuated creature is itself the first to announce—yea, and says that it is *glad* to announce—"that every thing is now arranged for the establishment of the long-desired central University in the metropolis!" *Desired!* By whom, we pray. By the Lizard? By the ugly reptile hatched in the hot-bed of corruption, and set to guard, like a griffin, the entrance of those dens of medical iniquity whose inmates now read in the charter of a metropolitan University the fiat of their own extinction? By the Lizard, hired to advocate the base monopoly of the College of Physicians, and, by a necessary connexion, the monkish bigotry of those Universities which have fostered the talent and learning of Britain, only to enlist them against the best interests of society? Yes, by the Lizard itself! The very Lizard which erewhile poured out a deluge of slime at the bare mention of a London University, now twists its tail with rapture at the idea of "the long-desired central University in the metropolis!"

This is not all. Our respected contemporary is not content with rejoicing

over the approaching annihilation of every thing which it used most strenuously to uphold, and the establishment of all that it formerly declaimed against with the utmost virulence, but, on the back of all this, it proceeds to rate the men of Gower Street most severely for changing their tune!

What has been the actual conduct of the projectors of the London University? Simply this; having endeavoured with laudable perseverance to establish a University in the metropolis, and having met with insurmountable opposition from other schools whose interests were at variance with their own, they now acquiesce willingly in a more extensive scheme, which compromises the interests of none, and is fraught with incalculable benefits to the whole community.

Let the patrons of the Gower Street school rest assured, that the ravings of the Gazette afford the best testimony to their own merit and success. We speak not under the influence of any political feeling; as medical journalists we acknowledge no distinction among Whigs, Tories, and Radicals; but we will, and do declare, our conviction that to Lord Brougham and his enlightened coadjutors in this patriotic enterprise, the English nation is most deeply indebted, for an attempt to place London on the same footing with other great metropolitan cities, in the possession of an University, and to afford our youth an opportunity of becoming scholars without becoming bigots, and of addicting themselves to learned professions without imbibing the anti-social vices which have too long disgraced those professions, and rendered them the very reverse of what they are called—*liberal.*

The London University has *not* been a failure, as the Lizard would insinuate. Let the Lizard answer this question. If the Gower Street school had not been founded, would government now be occupied with the establishment of

a "long-desired Metropolitan University?" or would the Lizard have ceased to extol the superhuman excellence of Oxford and Cambridge degrees, and the immaculate purity of the College of Noodles in Pall Mall?

How fortunate then is it for the Lizard that the joint stock company in Gower Street was set up! Why, if it had not been for this, our valued contemporary would either have burst outright with the vehemence of its pent up desires for a metropolitan University, or have pined away under the wasting influence of

—"gentle wishes long subdued,
Subdued and cherished long."

The founders of the London University endeavoured to attain certain highly desirable ends in connexion with the prosperity of their own institution: in this they exercised a species of *philoprogenitiveness* (we borrow a term from phrenology) which is inseparable from all human undertakings, and essential to their success. In acquiescing readily in a plan which merges their own in one of greater extent and utility, they merely show their good sense and consistency by retaining their attachment to a principle, apart from the details of its application—thus differing most widely from the dishonest Lizard, which, resisting all that is good or useful as long as it answers its own vile purposes so to do, adopts at last from fear and self interest the very thing it had previously opposed both in principle and detail; and, slavish alike in opposition and conformity, at one time echoes the howl of its corrupt masters against the very name of a London University, and at another is equally obsequious to their bidding in hailing the establishment of the "long-desired" institution!

The men of Gower-street, according to our contemporary, have determined with a good grace to make a virtue of necessity, and they are wise, since they

can do so without any sacrifice of principle; the Lizard has also made a virtue of necessity, but with the bad—the wretchedly bad grace of a floundering reptile that sprawls on the earth, because it has no longer a leg to stand on.

With how much ingenuity does our contemporary labour to give a colour to its proceedings! Verily the Lizard hath many hues; we thought it was a *green* lizard, but doth it not now look exceeding *blue* in this matter of "the long-desired Metropolitan University?" The Lizard is surely a chameleon! Leaving this turn-coat reptile to the contempt of honourable men of all parties, we heartily congratulate the profession on the prospect of a London University reared in a spirit of science and benevolence, and we cannot but express our sincere gratitude to those public spirited men who laid in Gower-street the foundation of so "long-desired" and necessary an institution.

—o—

Foreign Medicine.

Scald-Head.

M. A. Palmieri gives the following method for curing this disease. First carefully wash the head with soap and water. Then cut the hair to the length of half an inch. Cover the parts affected with a plaster composed of cow dung and common red earth, which is to be allowed to remain four days. After this we proceed to the depilation with facility, as the hairs may be pulled out with the fingers or forceps, as easily (says the author) as the tenderest feathers of a young pigeon. If any resist, they are taken away by means of fillets of linen, covered with fresh linen. Afterwards wash the head every third day with soap and water, in order to obtain a complete cure; which is generally effected at the end of ten days. If there are any chaps, or bleeding fissures, they are covered with a little soot, which hastens the cure. The author assures us this mode of treatment is not at all painful. It is at any rate, economical.—*Lancette Francaise*.

Académie de Médecine.—Dysentery.

M. VILLENEUVE made a verbal report of a Memoir by M. Toulmouche, of Rennes, intitled—"History of an Epidemic Dysentery which prevailed in 1834, in the Department of *He-et-Vilaine*, with remarks on a new mode of treatment, called the Chloro-opiatic."

Struck with the ill success of other methods, and impressed with the idea that the intestinal inflammation was of a specific nature, and occasioned by a deleterious principle which it was necessary to neutralize, the author submitted his patients to the action of chlorine, with which he associated opium, to remove the griping pains. Of eleven patients thus treated, not one died. M. Toulmouche gave the history of various cases, and concluded as follows:—

Dysentery is a violent inflammation of the rectum, colon, and cæcum, quickly going on to ulceration and destruction of the tissues, and having but very little resemblance to diarrhœa, and ordinary inflammation of the rectum and colon. Even with respect to epidemic dysentery itself, its nature and anatomical characters are apt to vary. The chloro-opiatic treatment has been followed with more success than most others; and when employed in slight enteritis, has appeared to be attended with similar effects. This treatment consists in administering by injection half an ounce or an ounce of the chloruret of the oxide of sodium in a pint of water; giving for drink a solution of the same substance, in the proportion of two drachms to a pint; together with a grain of opium in a pill, morning and evening.

M. Maingault.—The dose appears to me rather large; nor is it stated whether it is employed in all stages of the disease. In the majority of cases, its use has been accompanied by that of bleeding and leeches. Then the medicine has not always succeeded, or has not succeeded till after the employment of other remedies; in which case it cannot with certainty claim the merit of success.

M. Villeneuve.—The ordinary means were employed at the commencement, and the chloruret at the decline. How it acts I know not.

M. Lonyer-Villermay.—The dose is from

half a drachm to a drachm by the mouth, and from half an ounce to two ounces by the rectum. Now the action is much the same by whichever way administered; as is also the case with sulphate of quinine and opium. It is now recommended for everything; and I fear, therefore, it will meet with the fate of creosote.

M. Marc.—I remember a Memoir on Dysentery (though I have forgotten the name of the author), in which the opinion was maintained that in that disease there was constipation; and that the matters discharged were only the product of secretion from the intestinal mucous membrane; so that whatever would restore the stools would be useful; such as the sulphate of soda. There is an analogy here; the chloruret being also a neutral salt.

Absorption of the Crystalline Lens.

M. Faure read some general and practical remarks on the absorption of the crystalline lens and its membrane, and on some peculiarities of its non-absorption after the operation of cataract. He draws the following conclusions:—

1. The crystalline deprived of its membrane is always absorbed, and much more quickly in the anterior chamber.
2. The softer and more minutely divided is the lens, the more quickly (all other circumstances being the same) does its absorption take place.
3. The lens removed from its situation, but enveloped in its entire membrane, is never completely absorbed, but loses some of its less consistent parts, and diminishes more or less in volume, and its capsule becomes thickened or wrinkled.
4. The crystalloid membrane, torn into shreds, and well detached from the hyaloid, is easily absorbed, and more quickly in the anterior chamber.
5. The shreds which remain adherent to the hyaloid membrane, at a point more or less extended, are never absorbed, whether the crystalline lens be extracted, or depressed, or broken up. These shreds sometimes even unite with the hyaloid at various points, and more or less interfere with vision.
6. The crystalline divided and well de-

tached, but engaged and retained in the pupil, as a sort of plug, sometimes gives rise to spasmodic contraction of that opening, and to a secretion of plastic matter, which prevents the entire absorption of the little plug, and thus prevents sight, but does not preclude a very strong probability of the establishment of an artificial pupil.

7. A small opening in a crystalloid membrane, containing a milky or very soft capsule, gives issue to a part of that matter, which is quickly absorbed; but if we draw out the instrument, without pursuing the operation farther, the wound in the capsule, even though a line in length may cicatrize, notwithstanding the tenuity of the membrane, and the cataract will thus present pretty nearly the same character as before.

8. The crystalline, although completely depressed and plunged in the vitreous humour (of which some cells have been destroyed, in order to allow sufficient liquid to escape, to prevent the lens being pushed up by the elasticity of the vitreous body), nevertheless sometimes rises after a longer or shorter period, especially if the capsule has not been torn into shreds. It may then irritate the iris in such a manner, that it is not uncommon to see inflammation of a serious character, or cruel neuralgia supervene, so as even to produce atrophy of the eye.

9. The anterior part of the vitreous body, which forms a sort of receptacle for the crystalline lens, is sometimes altered from its natural state, and even becomes adherent to the posterior part of the capsule. In this case, whatever mode of proceeding be adopted, we must not forget to destroy or tear up this membrane, which is sometimes very little opaque. We thus favour the swelling of the vitreous body, which is very conducive to the clearness of vision; but which we must endeavour to produce with tenderness and caution.

10. When a large quantity of the vitreous humour escapes, it may be secreted afresh; but sometimes the anterior cells are not filled again; and small opaque membranes are perceived, which are never absorbed, and which are an obstacle to vision. They are difficult to remove, and are renewed with still greater opacity.

M. Faure afterwards distinguished the cases in which, in consequence of a blow on

the eye, and the rupture of the capsule, the crystalline lens may be absorbed, from those cases in which the capsule remains entire. In the latter circumstances, the lens, if partly detached from the hyaloid membranes, becomes white and diminished in size, and offers to our view a trembling cataract, which may become detached altogether. After the operation by depression, if the crystalline (completely removed from its capsule) again rises and becomes entangled with the iris, it may cause very sharp pains, especially to those subject to rheumatism. The absorption is then suspended as completely as if the capsule still enveloped the lens. On the subject of the trembling cataract, M. Faure cautioned his hearers not to confound with it a trembling motion of the iris and the aqueous humours, which may depend on the weakened resistance of the tunics of the eye, and perhaps, also on the diminution of extent in the diameters which correspond to the attachments of the iris; both these effects being (to a more or less serious extent) the consequences of removing the lens. He is also of opinion, that a collection of purulent matter, more or less abundant, may form between the crystalline and its capsule, and never be absorbed. Perhaps, the first hyaloid membrane may be prolonged further than is generally thought, and may add to the thickness of the capsule anteriorly: if so, these abscesses may have their seat between these two tunics, instead of in the lens.

Homœopathy.

M. Turck, of Nancy, read with warmth, a kind of diffuse disquisition, in which he pretended to have the power of curing and producing the gout at pleasure; and promised to publish shortly, in a large volume, his theory, his treatment, and his success. An animated discussion followed this unacademical communication. M. Bousquet called it a prospectus, and referred to the disapprobation expressed towards M. Cancoïn, who, nevertheless, indicated pretty nearly in what his therapeutic means consisted. Upon the suggestion of M. Bouillaud, M. Turck was requested not to join in the discussion. Messrs. Maingault, Planche, Renaudin, Gimmel, and Louis, remarked more or less severely on this mode of rendering the academy a party; as it were, to the propagation

of charlatanism; and on the motion of M. Louis, they passed to the order of the day.—*Lancette Francaise.*

Typhoid Fever.

The Secretary read a letter from M. Piédagnel, in which he replied to the assertions of M. Bouillaud, respecting typhoid fever.

M. Bouillaud, when the *proces-verbal* was read, said that he should not have taken part in the discussion, if it had not attacked the method which he employs, and which he thought it his duty to defend. He had not exaggerated the success he had obtained, as would be proved by a reference to numbers. He always distinguished serious from simple cases. Results proved that in four years he had lost fewer patients by one half, than those who died under the treatment recommended by Messrs. Louis and Chomel—a method which he considered preferable to all others. M. Chomel confesses to one death in three cases. Now, in four cases, out of one hundred and eighty-one well marked cases of typhoid fever, (excluding those of simple gastric irritation and embarrassment, and even bilious fevers), M. Bouillaud had had a hundred and fifty-three cures, and twenty-eight deaths; or 2 in 8.

M. Gérardin regretted that they had not read M. Piédagnel's letter, which placed the numbers side by side, and proved that the method of M. Bouillaud had not given statistical results of a more favourable nature than those of M. Chomel. In three months, M. Piédagnel had lost only two patients out of sixty; while M. Bouillaud, in the same time, had lost two out of thirty. Besides, typhoid fevers were more or less curable, according to circumstances.

M. Louis.—It has been said that no mistake can occur in the diagnosis of typhoid fever; but the fact is, that what is typhoid fever with one, is with another, simple enteritis. The results obtained by M. Bouillaud, in four years, have not equalled mine. Out of a hundred and four patients, treated by a uniform method, only twelve died. This method consists in two bleedings, more or less copious, in the first eight days; syrup of gum in two parts of water, for drink; and a bottle of Seltzer water, daily. I will not affirm that this treatment is the best in the world; but all typhoid fevers are not

equally serious. Perhaps those of M. Bouillaud were more so than mine. I never bled but one patient after the first eight days.

M. Castel reminded the Academy that the general mortality in these fevers was one in eight.

M. Bouillaud said we ought to avoid common-places. The cases of which he had spoken, were weighed and counted; and M. Chomel had justly rated the mortality in such cases at one in three. He paid a high compliment to M. Louis's diagnostic powers in this affection; and congratulated him on having saved, by the antiphlogistic method, more patients than himself. He had also frequently used the chlorides, cinchona, musk, &c.: but it was the *general* treatment with which they had to do. An enlightened commission was necessary for the satisfactory investigation of this important subject. He was devoid of all prepossession on the subject; and it was not till after visiting all the hospitals for twenty years, and examining all the methods employed, that he had chosen one, from which his personal interest ought, perhaps, to have dissuaded him.

M. Rouchoux also wished to have an inquiry speedily instituted, and applied to typhoid fevers, what d'Alembert said of concerts; that there were never two of the same tone—the pitch varying every time. Every one knows, however, that notwithstanding the differences between one man and another, there is a uniform mass, which allows of a comparison being instituted.

Compression in Hernia.

Dr. Fournier, of Lempdes, read a memoir on the inutility of operations and medicines for the cure of hernia when not strangulated, and the curability of that affection by pressure. The author looks upon topical applications as exerting no action upon a ring, composed, not of fleshy and contractile tissue, but of aponeurosis, destitute of the power of contracting; especially when these medicines have previously to traverse a certain thickness of skin and cellular tissue. He regards therefore, as illusive, the promises of curing hernia by bandages with medicamented cushions, and topical applications; and to prove their curability by compression, refers to Lawrence's treatise; in which the author states he has found, on *post-mortem* exami-

nation, large hernial sacs entirely empty, with their necks strongly contracted, wrinkled, and adherent. Petit, Arnault, and Ambrose Paré cite analogous cases of cure; but in all these instances the cure was owing to chance.

For fifteen years past, in his publications and his practice, Dr. Fournier has proved the cure by compression (by means of a simple bandage) of the oldest and most voluminous hernias, among old men, children, &c. He cites three cases: one was that of an advocate, whose hernia was cured in fourteen days, by means of a soft bandage, the pressure of which was increased day by day; and the cure was so solid, that he was able to exercise himself in lifting and carrying heavy burdens, after having left off the bandage. He is a married man; and five years afterward he had had no relapse. A single lady, twenty-seven years of age, had been cured in twelve days, and an officer of artillery, in eight, by bandages differently combined.

LONDON MEDICAL SOCIETY.

Monday, December 7, 1835.

DR. WHITING, PRESIDENT.

Treatment of Fractures—Gonorrhœal Rheumatism.

MR. DENDY exhibited a specimen of badly united fracture, resulting from a wrong diagnosis, and treating the patient in the manner recommended by Mr. Radley. The specimen was taken from a female aged sixty-five, who had fallen down six or seven stairs, and fractured the thigh bone just below the cervix; she sent for her surgeon immediately, who could not detect any crepitus, and thought the fracture was through the neck of the bone. He said he could do nothing for her, and he adopted Mr. Radley's plan, and the consequence was, that the patient became a cripple; the affected leg was two or three inches shorter than the other; osseous union had taken place.

Mr. D. considered the crepitus could not be distinctly felt in this case, from some of the *synovial fluid* having insinuated itself between the fractured portions of the bone.

Mr. Radley had put forward his plan so decidedly before the public, that Mr. Dendy thought it was fair to comment fully upon it; he considered that Mr. Radley had only given *ex parte* statements—his own cases—and a few that he had seen treated by his friends; he objected to splints in any case; and one reason he had advanced for so doing was, that they gave pain. Now he, Mr. D., was certain that Mr. R. was reasoning from the abuse, not the use of splints: he had seen cases, and so must every surgeon, in which splints had relieved pain by prevent-

ing spasm; he was convinced there are many cases in which the attempt to procure union without the aid of splints, would be attended with deformity, and the limbs would be of little use.

Mr. Bryant thought Mr. Dendy's case could not be advanced against Mr. Radley's plan being adopted in fractures of the neck of the thigh bone; the fracture in Mr. D's case being below the trochanter minor.

Mr. ——— advocated Mr. R.'s plan, that gentlemen having only lost two patients out of a great number he had treated. Mr. Radley did not object to splints merely because they produced pain, but that when they were dispensed with, local applications were much more easily applied.

Mr. Clifton thought novelties involving the welfare of the patient to such an extent as the one in question, should be cautiously received into practice. He thought the present plan fully sufficient for all purposes; and if the splints were properly applied, lotions and other applications might be easily used; he still thought the double inclined plane the most advantageous plan in most cases.

Mr. Hooper was satisfied that splints often prevented pain; he had a patient with a fracture of the tibia and fibula; on the removal of the splints severe pains came on, though the patient was perfectly easy before; the splints were again applied, and the pain was removed. He believed the fractured portions of a bone could not be kept in apposition without splints.

Mr. Roberts, when studying at St. Bartholomew's, had seen a case of fracture of the lower ends of the tibia and fibula, in which there was great inflammation and tumefaction; the dresser left the patient without splints and applied leeches; there was excessive pain, which was not at all relieved until the following morning, when, on the application of the splints, it was entirely removed.

Mr. Cripps was at a loss to know how the application of splints could relieve pain, inflammation, and tumefaction.

Mr. Dendy wished Mr. Radley's plan might be found an effective one, for he had often great difficulty in applying splints. Apology was due to Mr. R. for the manner in which his plan had been opposed by Mr. D., and he now offered that apology. The reason why splints relieved pain was this,—they prevented spasm, and the extremities of the fractured bone from riding over one another. Mr. D. related two cases in proof of the danger attending the non-employment of splints, and in which the after application of Mr. Amesbury's apparatus was attended with favourable results.

Mr. Bryant was satisfied that in all cases of fracture, splints and bandages would not be effective in keeping the portion of bone in apposition. He did not see any reason for the hasty application of splints.

Mr. Crisp thought Mr. Radley's plan

should be tried before it was decided on. He had seen cases in the hospital which would have done as well if not better without splints.

Mr. Hughes asked the experience of the Society in rheumatism, when connected with gonorrhœa. He had seen a patient with gonorrhœa, who, after exposing himself to cold, had an attack of acute rheumatism affecting the shoulders, knees, and muscles of the back, but chiefly the small joints about the foot. It was treated as rheumatic gout, with colchicum and small doses of mercury, without effect. The patient had applied to another surgeon, who pronounced it a case of "gonorrhœal rheumatism," and ordered him to take sarsaparilla and iodine: the case had not, however, improved under this treatment, which had been carried on for a fortnight. He had been five weeks under Mr. H.'s treatment before he commenced the iodine, &c. The rheumatism came on about a week after the gonorrhœa; he had gonorrhœa at the time.

Mr. Pilcher had seen so many cases of rheumatism affecting persons labouring under gonorrhœa, that he was convinced there was some connection between them, though what that connection was he could not say; he had found the rheumatism generally affect the joints of the lower extremities; he had always treated it as common inflammatory rheumatism, by bleeding, purging, and in many cases had found colchicum very useful. Dover's powders, in small doses, was good, but the use of mercury better.

Mr. Dendy thought gonorrhœa was a predisposing cause of rheumatism; he had seen so many cases in which it was followed by that disease. Rheumatism, he believed, was now more prevalent than it had ever been, and the cases were generally of the neuralgic character; he begged to ask the president whether he had found colchicum as effective in that form of the disease as when it attacked fasciæ and tendons, and if not, what other remedy was the best? He (Mr. D.) had found colchicum fail in a number of instances.

Mr. Robarts had seen rheumatism, chiefly affecting the joints, sometimes in gonorrhœa; it generally got well very soon, but in protracted cases he had found an ointment composed of the Ung. Hyd. Fort., and Ung. Cetacei, $\text{ā ā } \frac{3}{4}$ ss, and camphor, $\frac{3}{4}$ j, of very great effect.

Mr. Headland did not doubt that there was a species of rheumatism coexistent with gonorrhœa; he had a patient who always had both the diseases at the same time; he was unfortunately very liable to contract gonorrhœa, the consequence of which was, he was now a cripple from the effects of the rheumatic affection. Rheumatism was not, however, a good definition of the disease: it differed, in many respects from rheumatism. Opposed to that disease, the swelling never bore any proportion to the pain, which

was often great; it was not generally to be cured by colchicum, which was so invaluable a medicine in common rheumatism. He had found calomel and opium the best medicine.

Dr. Whiting believed the disease totally distinct from rheumatism; the inflammation attending it was of a different character. He considered the rheumatism attending gonorrhœa a specific disease, and that the treatment must be as specific. Colchicum relieved the inflammation in these cases merely by lowering the pulse; it did not act as a specific, as it does in gout and rheumatism. Having been appealed to for his opinion respecting the treatment of rheumatism, he might say, that in rheumatism affecting the muscles, colchicum was the best remedy; in neuralgia, the antiphlogistic treatment should be adopted; and in inflammation of the joints, existing with gonorrhœa, he considered calomel and opium most efficacious.

Mr. Horn exhibited Dr. Scott's improved hydraulic patent stomach pump, and enema syringe. The Society then adjourned.

—o—

WESTMINSTER MEDICAL SOCIETY.

Saturday, Dec. 5, 1835.

DR. ADDISON, PRESIDENT.

—

Extraordinary Case of Exfoliation of the Cuticle—Combination of Sulphate of Quinine with the Alkalies—Stricture of the Sigmoid Flexure of the Colon.

MR. HALE THOMSON related the following case of remarkable desquamation of the cuticle, in a patient affected with eczema:—

Thomas Cass, a carpenter, aged 24, tall and thin, of pale complexion, deeply marked with the cicatrices of the small-pox pustules, was admitted November the 17th, into the Westminster Hospital. The surface of the body in various places presents the cuticle in a state of desquamation, especially the thighs, the mammillæ, and the soles of the feet, in which latter situation this process is in the least advanced stage. The palm or surfaces of the hands and fingers have only recently parted with their cuticle, and are extremely red and tender; the fingers especially are studded with very minute drops of perspired fluid; the appetite is good, and bowels regular; tongue reddish, and slightly furred; pulse 84, of moderate force; general feeling of malaise in the chest, accompanied with a feeling of trembling and fluttering. By auscultation, an increased impulse of the heart's action is detected. The history of the case is the following: about six years since, had the small-pox very severely after vaccination; the left eye became opaque from a pustule forming on the cornea. After this he remained well during four years. An eruption now appeared all over the body, of minute vesicles (or as the patient terms them, pustules) as large as pin's heads; the intermediate portion of the integument

deep red, the red rash preceding the vesicles by a day or two. There was severe pain, burning heat, and great itching; these symptoms likewise succeeded the development of the eruption. The vesicles, in the course of a short time ran into each other, broke, or were ruptured by scratching, and discharged a watery fluid: the whole course of the affection occupied about six weeks, and its termination appears to have been in a moist desquamation of the cuticle. Preceding, and attending the local affection, there was considerable general disturbance of the functions; pain in the head; dazzling light before the eyes; slight delirium; uneasiness in the chest, with a distressing feeling of oppression and beating all over it; tongue very much furred, rough, and white; appetite but little affected, and no thirst; urine scanty, and high coloured; no sore throat. Twelve months after this he had a second attack, precisely similar in its course, symptoms, and termination. Six months had scarcely elapsed, when five months ago, he had a third attack; this he describes to have been preceded as in the other instances, by pricking and tingling of the skin, attended with a burning pain, followed by a general feeling of coldness all over the body. He did not take, as before, powerful sweating medicines. The affection returns at intervals of about a month or seven weeks: this is the third attack. On the 22nd, he went to bed as usual, but being restless, five grains of the pil. sapo. c. opio were given him: he complained in the morning of pain in the head, and he had a rigor; and a uniformly red rash came out about the neck, which, before morning, had invaded every portion of the body; he was bled twice, and opiates and salines given him. He continued to the 24th, with opiates, saline effervescing mixtures, with diuretics, and purgative doses every alternate morning. On that day Mr. White saw him, and prescribed a mixture, containing the following ingredients, as he thought he perceived a periodicity about the disease.

R. Quinina sulph. gr. xvj;
 Pul. gum Acaciae ʒji;
 Liq. arsenicalis, m. xlviij;
 Aq. puræ, ʒ viij.

M. ʒ i. ter die, to be continued for four days.

This treatment had not the expected effect, and the former plan was returned to this morning. Mr. Thomson wished to know if the disease could be termed eczema, and if so, in what class it might be appropriately placed. The patient had not, in any of the attacks, shed his nails, but on the contrary, they seemed to grow; and now showed marks on them of the three different attacks. His hair falls off, leaving an abundant scurf, attended with a disagreeable odour. The desquamation began when the vesicles first presented themselves on the shoulder and about the axilla, but he looked upon the

novelty of the case, as consisting in the periodicity of its character.

Dr. Copland inquired what decomposition would take place in the mixture prescribed by Mr. White; he understood there was pain in the epigastrium; most likely there was some degree of gastro-enteritis, and he thought it likely to be increased by that medicine.

Mr. Hale Thomson said, there was no tenderness at the epigastrium; he could not say what was the decomposition resulting from a mixture of the sulphate of quinine and the liquor arsenicalis; he had often used the medicines, so combined, and found them useful.

The President thought Willan and Bateman had accurately described this form of eczema under the title of *E. rubum*—they mentioned periodicity as one of the characteristics of the disease; though no vesicles in this case had been observed, he thought they might have been so minute as to be almost imperceptible. He had found the liquor arsenicalis the best medicine in eczema.

Mr. Thurnam contended there were no vesicles present—there was merely redness, ending in desquamation. He thought Rayer's division of eczema, into acute and chronic, much better than the varieties of the disease given by Willan. In answer to a question, Mr. T. said those parts of the cuticle which were thinnest exfoliated first—not those exposed to the atmosphere.

Mr. Hale Thomson thought Rayer's division of eczema into acute and chronic the best. Willan and Bateman dwelt particularly on vesication—there was none in this case, where the skin desquamated chiefly, but simply inflammation; the desquamation was not influenced by atmosphere, the last portion of cuticle that came away being from the heel, and that was accompanied with a portion of the previous exfoliation.

Some conversation now took place with regard to the effect of the alkalies when mixed with quinine. Dr. Johnson had often ordered them with great benefit—there was no sensible decomposition, and the properties of the quinine did not appear to be affected. Liquor potassæ, however, was an exception, for it formed, with sulphate of quinine, a substance of the consistence of putty.

Dr. Copland maintained that the sulphate of quinine was decomposed by the liquor potassæ; it must also be affected by the carbonate; he believed the two fixed alkalies both decomposed it; he knew ammonia did, and thought the same might be said of magnesia.

Dr. Johnson had not been in the habit of combining magnesia with quinine, therefore, could not speak as to the result.

The specimens of the exfoliated cuticle brought by Mr. Thomson were sent round for inspection—they were perfectly unique-looking, like beautifully worked transparent gloves; here the subject dropped, and

Mr. Salmon was requested to favour the Society with a history of a remarkable case

of disease of the colon—a specimen of which was on the table. Mr. S. said the specimen was removed from a lady, aged 60, whose general health had been good; but she had been subject to great costiveness. When Mr. S. was called in to the case, there had been no evacuation for three weeks and three days, and there was none during his attendance, which lasted two weeks more. The physician who had called him in considered it to be a case of ileus, and supposed, from the long continuance of the constipation, that some mechanical obstruction existed; there was not the least desire, on the part of the patient, to relieve the bowels—an important fact, with regard to the opinions he (Mr. S.) had advanced on the functions of the rectum. For the purpose of examining the intestine, a tube two feet long was employed, when a stricture was found to exist fifteen inches up, at the sigmoid flexure of the colon: the means employed for relief failed, and the patient died. Mr. S. believes that had proper means been resorted to in the commencement of the disease, the patient's life would have been prolonged. After death, the collection of hardened feces in the colon filled three large chamber utensils; the colon was of course immensely distended, its ascending portion being 13 inches in circumference, the caput coli 14, whilst the strictured portion was only $1\frac{1}{4}$ inches. Its coats had become exceedingly thin. Mr. Salmon said this was a case proving the possibility of detecting stricture when situated as high up as the sigmoid flexure; and that an instrument might be passed higher up the bowel than where it was usually supposed stricture could exist. A very long discussion followed with respect to the safety of using bougies of great length in strictures of the rectum, and as to the possibility of detecting a stricture from a natural obstruction resulting from some angle of the bowel. It was contended, on one side, that no rules could be laid down for the introduction of the instrument, and that it was mere chance where it went to; that if the bougie were of very soft consistence, it would turn back upon itself; and if hard, would be attended with much danger. Mr. Salmon said, that experience alone could be relied on in the employment of the rectum bougie; he had used it in at least 20,000 cases without any ill effects resulting from it. His bougies were constructed like the common elastic urethral bougie, but contained 9-10ths more bees' wax; he made them rather soft by a heat beyond that of the blood, before introduction; they cooled and became hard in the intestine, and moulded themselves to the stricture. He contended bougies might be used with perfect safety.

We have not space to give the discussion in full—should we have room next week we may probably do so.

BOOKS.

Elements of Bedside Medicine and General Pathology or General Disease, with a sketch of the Origin, Progress, and Prospects of Clinical Medicine and Surgery, followed by an exposition of the Creeds of Medical Materialism and Vitalism, and a Confession of Mixed Medical Faith: entitled, Vegetable, Brute, and Human Organizationism, &c. &c., the whole chiefly grounded on a digested range of select analytical and condensed translations, with eductions from the writings of standard authors, French and British, By J. Stewart Thorburn, M.D. 8vo. pp. 473. London. 1836.

A Practical Treatise on Midwifery, containing the Result of Sixteen Thousand Six Hundred and Fifty-four Births, occurring in the Dublin Lying-in Hospital, during a period of Seven Years, commencing November, 1826. By Robert Collins, M.D. late Master of the Institution. 8vo. pp. 526. London. 1835.

The Cyclopædia of Anatomy and Physiology. Edited by Robert B. Todd, M.D., Lecturer on Anatomy and Physiology at the Westminster School of Medicine, Physician to the Western Dispensary, and to the Royal Infirmary for Children, &c., &c. Part IV. Illustrated with numerous Engravings. London. December, 1835.

The present number of this work excels, if possible, those that preceded it.

Education Physique des Jeunes Filles, ou Hygiène de la Femme avant le Mariage. Par A. M. Bureau de Reofrey, M.D., &c. 8vo. pp. 352. Paris and London. 1835.

This is a sensible, well written work, and well worthy of the attention of the general and medical reader. There are some points on which we do not agree with him, but great allowance is to be made for a foreigner who has taken up his abode amongst us.

—o—

CORRESPONDENTS.

—o—

A Liverpool Correspondent.—We shall notice the work as early as possible.

A Brighton Friend, A Manchester Subscriber from the beginning, An Edinburgh Subscriber, &c., &c., are informed that the Lectures will be commenced so soon as the plates are engraved, which are now being done. This series of plates will be the most extensive and best executed ever published, on the subject, in this country. If our subscribers support us, we may give one every week, or alternately with the Medical Botany. We pledge ourselves to fulfil the promise; and we assure our friends that we have incurred very great expense in the undertaking.

Communications have been received from Dr. Hunter Lane, Dr. Bardsley, Mr. Stevenson, A Foreigner, and others.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXVII.

*Prognosis and Treatment of Chronic Gastro-
intestinal Inflammations—continued.*

3. Of the symptoms. You should learn to distinguish between those which afford hope, those which diminish it, and those which give none. About one of them—great appetite—a great noise has been made, but it does not frighten me; on the contrary, I consider the continuance of the appetite as a favourable sign, or, at least, one that should cause no alarm in chronic gastritis and enteritis, even when it reaches the degree of bulimia. This bulimia may be subdued by bleeding, and mucilaginous drinks, with low diet. I prefer it as a symptom to anorexia, which is a bad sign. Loss of appetite is frequently an announcement of some thinning of the coats of the great sac, or of its softening, particularly when it supervenes at an advanced stage, or when the mouth is always in bad condition, and filled with fetid, nauseous, and viscid saliva. In such case the disease is rarely curable. If to these symptoms are joined redness, and bleeding of the gums, caries of the teeth, uncertain sight or blindness, it is impossible to recover the patients: I never saw any one recover after these symptoms had lasted more than three days. Some patients remain in this state as long as three weeks, without drinking, or eating, and quite blind. Phenomena like these, shew you the activity of the sympathies, on which ill-judging people have attempted to heap ridicule. When the stomach is softened and almost perforated in chronic gastritis, the patient is unable to swallow any thing, notwithstanding the efforts of his entire will. I remember having to see a lady with two of my brethren: she had lost her sight, and was unable to swallow. It was proposed to introduce a sound by the

œsophagus, and pass food into the stomach. I remarked upon the danger of such an attempt, stating, that there was, probably, not more than a thin layer of peritoneum to form the great sac, and that the patient might die during the attempt; and I advised that she should be supported by gelatinous and farinaceous clysters. She died a few days after, and we found a spot in the stomach as large as the hand, without the slightest appearance of mucous or muscular membranes. A minute cellulo-serous net, almost as thin as spider's web, was all that remained, and it yielded when slightly touched. Had anything been forcibly introduced into the lady's stomach, when alive, she would assuredly have died on the spot.

The most dangerous symptoms, therefore, in chronic gastritis are unpleasant salivation, loss of sight, and inability to swallow. Yet, if these symptoms appear, after some excesses in a person that has not passed through all the stages of the chronic condition, it is sometimes possible to do away with them. Of this I have an instance in point at this very time: I had augured badly of the case, and I am glad to say that I augured erroneously.

Vomiting is a bad sign, in as much as it indicates an intense irritation of the stomach, as well as a nervous condition. As nervous phenomena are apt to become habitual, the vomiting may continue, and is then difficult to overcome. But we must not look to this symptom alone; for there are some who, having gastritis, and merely thinking of anything disgusting, are subject to emesis: such persons are particularly liable to obstinate vomiting, when they have gastric irritations. You must then refer to other signs: if the redness of the mouth, tongue, and larynx be not very intense, if the epigastrium is not sensitive, the pulse rather slow than rapid, if there is not very strong pulsation of the celiac, or any of its main branches at the epigastrium (remark that these pulsations are important, and should be examined with the stethoscope, so as not to be confounded with those of the heart, which are double, or with those of the aorta, which are cylindrical, or elongated), if vomiting is present without all these signs, it indicates no

great degree of irritation, and, therefore, no danger. Sometimes it suddenly disappears when least expected, in consequence of some moral affections, some change of beverage, a piece of bread, or some new kind of food which the patient has taken. Some one will say that it is a deceptive symptom; but let us be precise—vomiting may be, but it is not always a symptom of gastritis; sometimes it is only a convulsive movement remaining in the stomach subsequent to inflammation. We have only to distinguish cases, and this is not done by those whose judgment is only grounded on words, and who are rather engaged in the act of contradicting, than with the desire of improvement. If the symptom in question be joined with epigastric arterial pulsation, redness of the tongue and mouth, frequency of pulse, &c. it is dangerous, and indicates inflammation; if it stands alone, it is of slight consequence. If it persists, with bad symptoms, and brings the patient down to marasmus, with inability to swallow, and derangement of the intellectual and visceral functions, there can be no doubt of approaching death. At this period the skin is strewed with red patches, and spotted with petechiæ; the patient is extremely feeble, and cannot move without having nausea. When vomiting is conjoined with the positive signs of a scirrhus state, it is still more fatal in aspect; in that case the phlegmasia almost invariably becomes general in the digestive canal one or two days before death, and the pulse becomes frequent.

When a man that has gastritis, with slow pulse—forty or forty-five beats in a minute—diminution of external temperature, and concentration of heat internally, suddenly has an acceleration of circulation, and return, or increase of heat of the skin, it is favourable, provided the disease has not been too long in existence.

When, upon being bled, the pulse of a patient that has a concentration of blood in the stomach, with vomiting and twisting colics, without fever, rises in frequency at the same time that the heat of the skin returns, it is a good sign.

But when this acceleration of pulse and elevation of temperature occurs in an individual that is exhausted by a long standing chronic state, which you have been unable to relieve, they indicate a generalization of the phlegmasia, or a peritonitis, or the development of pulmonary inflammation. In such instances the gastric sensibility is extreme, and adds powerfully in exhausting the nervous power of the patient.

If an individual with chronic gastritis and duodenitis combined with constipation, becomes purged, it is difficult to give an opinion on him. Should this happen in the onset, in consequence of antiphlogistic treatment, the malaise at the same time diminishing, good; but if the same does not occur until a very late period, in one who has not been

well cared for, whatever means you may have employed, bad: the diarrhœa soon takes from him his remaining strength, and he dies in a deplorable condition, sometimes infiltrated and distended by effusions.

In chronic duodenitis, when the symptoms of depravation or suppression of bile, before mentioned, are seen, our hope must be less sanguine. The causes of this suppression must, however, be sought for. Not long ago, I was consulted by a brother medical man who had had chronic duodenitis, with constipation and decoloration of the fæces, for two months: at first he was able to eat tolerably well, but latterly, deterred by the pain caused by food, he gave it up altogether. I told him that if he did not take at least some light aliment, his liver would fall into complete inaction, and lose the habit of secreting bile, and that his health would break down, daily without the possibility of re-establishing it. He took my advice and got round. This suppression of bile may be produced in another manner, which I shall afterwards point out.

In the same kind of duodenitis, when the patient is constipated, his complexion waxy, his strength gone, and he can no longer bear food, or be nourished: when his motions are no longer coloured with bile, but white and earthy, and his liver enlarged, it may be presumed that that viscus is affected consecutively on the duodenitis, that it will be unable to renew its function, and that the patient is on the high road to cachexy and marasmus.

Enlargement of the liver, joined or not to constipation and decoloration of the fæces, in one labouring under a recent attack of chronic duodenitis, whose complexion is still good, and who is in good state of nourishment, may be dissipated by means of antiphlogistics: but when the enlargement, constipation, and fæcal decoloration is accompanied with incipient dropsy in patients who have had relapses, and have been treated improperly, there is rarely any hope of recovering them: all we can do is to keep them alive for some time with an ill-conditioned digestive canal, prolong their existence eight or ten years, but anything like constitutional vigour they never recover.

As regards the chronic inflammations of the small intestines, you cannot answer for the cure so long as you feel hardness, tightness, and persistent sensibility in any portion of the mid-belly. An individual may have had a sensitive point in some portion of the small intestines which he has neglected, and at a time when he least thinks of it, he shall discover a tumour in the spot. This tumour may increase with varied rapidity. How often have I not seen this, even in medical men, who having abandoned the physiological treatment, and tired of low diet and a slow cure, had had recourse to stimulants! For some time these masked their sufferings, and they thought themselves cured, when

all at once, the pains returned, and they lighted on a tumour. The slowness and insidiousness with which tumours of this kind form, are owing to the fact, that the cellular and glandular tissues of the abdomen are not in immediate contact with the stimulants, are not the first to be affected, and to the necessity which there is of long stimulation of the corresponding mucous membrane previous to the development of indurations in those tissues. So long, however, as their size does not increase, there is hope of their resolution; but when they have attained a certain volume, it is no longer possible—they go on increasing, or remain stationary. Patients may certainly live with a mesenteric, or cellular, or epiploic tumour situated behind or before the intestinal tube, but they will be subject to colics, to painful digestions, uncertain health, and also to the symptoms of hypochondriacism.

When the inflammation occupies the lower portion of the small intestines, and has not passed the ileo-cæcal valve, there is always a tumefaction and lancinating pain in the direction of the valve, at certain periods of digestion. You know how abundant lymphatics are there, and then it is that indurations most readily form. So long as the inflammation does not exceed the valve, the patients are constipated, tortured with flatulence and borborygmi, and have a yellowish complexion, for the biliary secretion is changed, and the liver in a state of lesion. Indeed, it is a general law, that organs which do not act become deteriorated: if you refrain from chewing for a certain time, your gums will become so; if you eat not, your stomach will be so: all organs intended to be stimulated, or to act after some manner—and none is free from this liability—ought to be exposed to a certain degree of stimulation in order to their preservation. Thus the liver, which ceases to act in consequence of a gastro-duodenitis, or a jejuno-ileitis becomes deteriorated, and you would be wrong to look upon such deterioration as corresponding to duodenitis alone, for it may correspond with all the affections that derange the digestion, and prevent the biliary secretion.

If chronic inflammation has passed the valve, and you have an irregular diarrhœa, with pains of the belly, and a tumour, the case is serious, and the danger is much more commensurate with the size and progress of the tumour than with the pain. The latter, indeed, will scarcely suffice to guide you in ascertaining the exact seat of the disorder, in as much as visceral pains are often referred to the median line; a fact, the reason for the omission of which in pathology, I cannot imagine. So also in bronchitis, the pain is referred to the same line, except when the irritation predominates laterally in the pleura or the substance of the lungs. The same is observed in affections of the heart. Yet the stomach appears to be an exception,

and why? because it has a particular nervous system, and its sensibility is less obtuse than in the other regions of the digestive canal: notwithstanding which, do not place too much faith in its perceptions. Rather, in ascertaining the irritated point, refer to the manner in which it performs its functions, to the deglutition, to the sympathetic phenomena caused by the sojourn of aliments in it, and to what occurs when they pass out of it—all which is more certain than the evidence of the patient.

A large tumour of the right iliac region with difficult defecation is more serious than in the left iliac fossa, or in the sigmoid flexure. In the majority of instances, the physician can only partially relieve the patient, and put off for a time the fatal event.

Contractions of the lower portion vary in situation, and are distinguished from each other by the following signs:—when they are in the left side, the matters are voided with colics and efforts, whilst on the right side, in the iliac fossa, or ileo-cæcal valve, there is no effort, but only colics during the passage of the matters through the diseased part. In the latter case, the fæces are fluid, fetid, mixed with mucous secretions, bile, and a residue of chyle; whereas in the former they are less diluted, thready, and only make their exit immediately after the colics, and during the efforts: above the contracted point or obstacle, an increased volume and hardness, round which the abdominal muscles contract, is observed.

Such are the signs that announce the formations of these contractions. Generally the patient begins by being unable to retain the fæces, and has diarrhœa: subsequently he is constipated, and whenever he has a motion, is obliged to make considerable efforts: he has the sensation as if the matters were traversing a hot and burning passage, and there is shooting pain of the anus. If he be examined previous to the want of passing the excrements, the latter are found collected above the obstacle; when he is about to pass them, pains are experienced, then come contractions and efforts, during which, if the patient is emaciated, you may see the contractile movements of the intestines; the matters come out sometimes fluid, sometimes strangulated and more consistent. After their evacuation there is sometimes tenesmus and sanguinolent glary matters that have no fecal odour, and which proceed from the rectum below the contraction. The patient is sometimes a whole fortnight without passing by the anus anything that resembles excrement, in which case there can be no doubt of the disease, and it only remains to ascertain the point of contraction, for which purpose you employ feeling, percussion, and actual touch. Its most frequent situation is in the sigmoid flexure, but is sometimes lower down, near the anus, when it is more tractable. Above all, observe well the moulding of the abdo-

minimal muscles upon the knotty parts of the intestine.

A word on the neuropathic conditions of chronic gastro-intestinal inflammations. When such condition depends on this inflammation—for it may be owing to other causes—it indicates only a slight degree of intensity of the latter: nor is it a bad sign. If the proper means be persevered in, it disappears with the irritability of the digestive canal; or if an acute attack supervenes, it also disappears. Hence it is that you read in authors of hypochondriacism having been cured by fever and acute disorders, a manner of speech that indicates the fact to which I am alluding, only you must understand that the neuropathic state is cured by the dissipation of the chronic condition by the acute stage.

Treatment of Chronic Gastro-enteritis.—

We have seen that there are several degrees of inflammation of the stomach—the general inflammatory state, in which there is anorexia, or such excessive pain on eating as to render patients fearful of taking food, and a minor degree, in which they eat with *gusto*, but suffer during digestion.

In the former degree low diet is necessary. Then, as there is imminence of the acute state, antiphlogistics, and especially topical bleedings, are indicated. This chronic gastritis often commences with that irritation of the stomach that is called gastric disorder, which, when badly treated, may not perhaps pass into the acute state, but after being opposed by emetics may be continued under the form of gastritis with hypochondriacism: the treatment, however, is the same. You hear people say that this gastric disorder will yield to emetics alone: it is false—thousands of observations prove the contrary, and I cannot imagine the impudence that has caused such an assertion to be put in print. In my time I have used emetics, and I gave them up because I discovered the mischief they do. Those who assert that I have only employed, and do only employ, leeches and gum water, have no respect for the truth, and are calumniators: they give me ideas that I have never sent forth, and, in order to make me as absurd as themselves, they make me deny facts. I know as well as they do that a slight irritation sometimes yields to stimulants—I have seen it in external organs: but I maintain and repeat, that though an irritation does yield to stimulants it is not the less an irritation. Whether you cure a gonorrhœa or ophthalmia with emollients or astringents, an erysipelas with a blister or with leeches, these are not the less inflammatory. Those who maintain the contrary must have given up all logical reasoning, or be intent upon abusing superficial minds. They are astonished to see me refer so many diseases to irritation!—but am I building up a theory, or laying down certain facts? Besides, why are they not

also astonished to behold so many physical phenomena explained by attraction, so many chemical phenomena referred to affinity, and both these forces even condensed into one? Why should not a series of facts in medicine be referred to irritation? Should it not rather excite our admiration of nature, that, by one simple means, produces so many and so various effects, exhibiting the wonderful sight of an organized machine obedient to a small number of laws? Should it not be a consolation to him who is striving to relieve humanity? But they will none of this—they will only hold by gastric disorder as independent of irritation. Ask them what this means, they will tell you that something is collected in the stomach, that the patients have a bitter mouth, mucous tongue, headach, &c., and that this something is only urable by emetics. Here is another falsehood—I tell you again, it is better cured by antiphlogistics.

As to the asinine objection, that I see nothing but irritation in diseases, you may learn my thoughts on this point by reading the third lecture of this course. I never advanced any such thing—it is the old trick of printing what I never uttered. Mark what I say to-day—to-morrow you will see the exact contrary in some journal.

Gastritis of a slight shade may be treated and cured in different ways, by emetics and purgatives, by leeches and mild drinks: but the antiphlogistic treatment is preferable, because it is more rational and cures both more surely and more rapidly, even in the supposed cases of gastric disorder. That is my proposition.

When gastritis is of a shade that allows of appetite and a commencing digestion, but one accompanied with pain, the seat of this pain must be sought for, and when you have discovered it, practise topical bleeding. In saying that this bleeding will be efficacious, I advance a fact: in saying that if you place leeches on the portion of skin immediately corresponding to the irritated part, you will have a darker coloured blood than at the distance of an inch from it, I advance another fact, and not an idea *à priori*. If blood comes on you apply cupping glasses on the part, then poultices, then cupping glasses again, if necessary. In this manner you get rid of circumscribed irritations both of the cardia, the pylorus, and the great sac. You must then insist for some time on a mild diet. You succeed if the stomach has not been ruined by polypharmics, who see forty diseases in one, and have as many remedies against it, who pass the entire contents of an apothecary's shop through the stomach, and adjust a drug to a symptom like a hair to a hole. If you come after that race of people you have plenty to do: a long time is required for the cure, and not unfrequently you are not able at all to effect it, unless your own confidence in your remedies is strong, and that of your patient

in you is equally so. The most difficult cases you meet, are those that are consequent on acute diseases: that have been treated by stimulants and tonics; for patients so treated do not always die—nature will not allow them all to be killed; when she is too much tormented in the visceral centres, she flies by another route, and critical discharges come to her aid; but the super-irritated organs remain for a long time out of order, and sometimes do not get round at all. This method, essentially bad in the present case, ought to be restrained but not proscribed. It is false to say that we never make use of it, and that we confine ourselves to leeches, and gummy and mucilaginous substances. I profess that these latter means are fit for recent diseases, but that when they are of very long date, and reduced as much as possible, stimulation becomes supportable, or even sometimes necessary, either directly to change the vicious mode of vitality, or indirectly to turn it aside. A great length of time is sometimes required for the cure of gastric irritations caused by stimulants, to which a neuropathic condition is often joined. Mild drinks are then proper, but not all in the same degree—they should be chosen: one person bears acids, another mucilaginous, another feculent, and a fourth gummy substances. Some will only bear water. Most commonly patients prefer cold drink, but after some time their drink should be warm. Phlegmasia sometimes exists in different degrees in the same stomach, and requires various modifications. The greater part of the organ is sometimes uninfamed and relaxed, at the same time that a spot remains where irritation persists; the difficulty is to root out this remnant of irritation. It is pretty readily done by fasting and emollients in the first instance, and then by mild aliments, baths, &c. it may be so far reduced that in order to exasperate it the employment of stimulants for some time is requisite. It is this latitude of stimulation that puts the stimulants at ease, and gives them power over their patients, who are at first relieved by stimulants, become cheerful, get rid of languor, and the tedious process of the antiphlogistic regimen, not foreseeing, meantime, the relapse that awaits them. It must also be allowed that they sometimes recover by these means. Then comes a glorious text, and opportunity for the sophisms and declamations of our contradictors; they have gathered all the laurels and advantages of a cure prepared and almost perfected by the physiological physician that preceded them, and in return, they abuse him. This happiness, however, is not always theirs; more frequently, and almost invariably, they obtain relief for a few weeks, or months only, and the patients become worse than ever. If you doubt this, I do not doubt that experience will one day teach you its truth.

After having treated a partial gastritis, and got rid of the sensibility that existed, if the

patient strongly desires to take food, yield only gradually, and do not pass from one extreme to the other by the sudden administration of tonics and wine. Gradually increase the food, and at the same time produce external revulsion by means of frictions with irritants that cause eruptions, pustules, or even suppurations: prescribe country air, moderate exercise, occasional baths, constant warmth of the surface, particularly of the extremities, change of locality, &c.

If the sensibility of the stomach is excessive, should we immediately give opium? No. Should it always be prescribed? No. When the antiphlogistic treatment has been continued for a sufficient length of time, that is say, when the tongue is pale, the skin colourless, without morbid heat, or rather tendency to cold, you may administer it. Lest you should be deceived, do not at first give it internally, but by the endermic method—an eighth of a grain of acetate of morphia sprinkled over a small blistered surface.

After antiphlogistics and narcotics have been unsuccessfully employed, if you have reason to fear (the patient being of a lymphatic temperament) that some point is scirrhus or ulcerated, have recourse to suppurative revulsion; establish several cauteries and setons.

I return to a precept above laid down in a general manner, into some details of which it is requisite to enter. I said, above all use the antiphlogistic treatment: this should be done in a reasonable way. If the inflammatory condition of the stomach is general, you apply leeches to the epigastrium, and the number of them should vary. In a good clinical course, you may learn to proportion the number of leeches to the powers of the patient: to an adult who has not yet undergone treatment, we apply thirty or forty: if he has suffered much from sickness, only twenty; one, two, or three suffice for a child; ten to fifteen for a female. Sometimes, when the patient has had several relapses, you proceed by epicrasis: you first apply two or three leeches daily, and then increase them, always looking closely to their effects. If the patients are nervous, have but little blood, if the leeches irritate them and produce malaise, wait a couple of days before you return to them: these symptoms frequently disappear, and the leeches are then as beneficial as ever. Possibly they may persist, for some persons make blood with difficulty, and these losses of blood throw them into a state of excessive nervous irritability: we are then obliged to give up leeches, and have recourse to other means; to the mildest emollients and anodynes.

Supposing you have contrived to bring your patient into eating order, but that disagreeable symptoms recur after each meal, that the digestions are laborious, accompanied with pyrosis, gastralgia, cramps of

the stomach, pains proceeding to the loins, ribs, shoulders, and liver, symptoms of hypochondriacism, flatulence, restlessness, flushings of the face, sombre and melancholy feelings, &c.—what should you do? The remedy is very simple, too simple to have been the last thought of: at the end of two hours and a half or three hours of digestion, when the chymous mass is nearly formed, give water in small quantities, at short intervals, small doses to weak and larger doses to strong persons. You must give it by spoonful, alone or sugared, to delicate, pale, and feeble individuals, who have lost blood: such persons do not very well bear aqueous fluids, though it is absolutely necessary they should have them. This, however, is the case with by far the smaller number of patients; the majority of them have a vehement desire for them. You therefore, at the time stated, pour into the stomach a refreshing fluid that calms it, does away with the spasm of the pylorus, the pain of the cardia or great sac, and the stomach evacuates its contents with infinitely less disturbance. This simple precaution has cured thousands of gastritis. Do not believe that by giving tonics the stomach will digest better; on the contrary, it will digest worse, and will even cease its function altogether. Still, however, it requires nutritive substances, and will not digest watery and herbaceous vegetables alone, which contain but little alible particles.

This aqueous beverage, to be taken towards the close of digestion, may be either lemonade, or simple water, or sugared water, mucilaginous infusion, gooseberry juice in water, or a mild syrup, in short, any light and refreshing drink, according to the patient's taste: this is to be taken in small quantities at once, and the whole quantity taken to be something less than that of the chyme. It ought to be just sufficient to calm the irritation arising from the labour of digestion, and not so much as to drown the chyle. A physician who had left the country to establish himself in Paris, having contracted a gastro-duodenitis in consequence of some corroding vexations and *arbitrary acts** of which he had been the victim, had undergone a very severe antiphlogistic treatment, and could bear no more bleeding. With considerable difficulty he had contrived to recommence eating, and on the approach of the third hour of digestion he suffered exceedingly, and could not tell what to do. I advised him to drink a small quantity of water at the close of each digestion; he did so, and in a fortnight was well. I tell you again, water should be taken in small quantity†, otherwise it will

disturb instead of assisting digestion. And so of all our remedies—they should be, in the first place, well chosen, and then used in proper time, place, and quantity; in this the practice I teach essentially consists—in the most appropriate employment of modifying agents: I reject none, I apply them all, but in fit time, in an appropriate way, and in the most beneficial quantities. Foul criticism of such a system is in bad taste, and ridicule of it is little less than criminal, for it is ill placed in so serious a subject as the recovery of man's health.

—o—

LECTURES ON THE PHYSICAL EDUCATION AND DIS- EASES OF INFANTS, FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho;
Session 1834-35.*

LECTURE LIV.

Development and Intra-uterine Diseases of the Organs of Locomotion, or Osseous and Muscular Apparatuses—Intra-uterine Diseases of the Lymphatic System—Development and Diseases of the Organs of the Senses—Vices of Conformation and Diseases of the Eye.

Diseases of the Organs of Locomotion.—It is necessary to refer to the development of the extremities before I allude to their vices of conformation. The extremities begin to appear about a month or six weeks after conception, in the form of small salient points, which are flattened on the sides. The superior limbs are developed before the inferior, and both are manifest at the end of

late Mr. Abernethy, who also recommended water two or three hours after meals, but in large draughts. In a late visit to Liverpool, my very learned and excellent friend, Dr. Carson, of that town, told me that he had seen the best effects in cases of distressing digestion, from the copious employment of water during meals, and that he was in the habit of advising it in all such cases: "I set the food floating in water," was his expression. My own experience certainly rather coincides with that of M. Broussais than Dr. Carson. Should this meet the eye of the latter gentleman, he may perhaps be induced to give the profession the results of his experience in this matter: his reasons for the particular practice are doubtlessly good, and I, of all others, have the least reason to question it, recollecting as I gratefully do, the consummate skill, attention, and kindness that he exercised in rescuing me from a frightful attack of illness some years ago.—J. M. G.

* Italics are used in the original: the expression has probably reference to some acts of the French Government, acts that too frequently deserve the adjective above employed.—J. M. G.

† This precept runs counter to that of the

the eighth week. The vices of conformation of the extremities are very numerous. The limbs may be entirely absent, or deformed in every part; they have been divided, or amputated, fractured, and luxated during intra-uterine life.

Haller cites numerous cases of absence of one or many members, of both arms and legs, or of some portion of one or both extremities. He also records supernumerary members on one body. (*Opera Minora—De Monstris*). Dr. Montgomery, of Dublin, and Mr. West, of Allsop, have related cases of amputation of the lower extremities in the uterus. The former very politely shewed me a fœtus in his museum, the inferior part of whose leg was considerably compressed by a band formed by organized coagulable lymph. An infant was born at the Maternity of Paris, whose arm was amputated and cicatrized, and the separated portion was implanted on the surface of the placenta. M. Chaussier thought that this kind of amputation was caused by gangrene, but Dr. Montgomery's explanation appears much more satisfactory.

Mr. Atkinson relates a case of an infant born with one lower extremity amputated and the stump cicatrized; and he found the foot in the vagina. He attended the parturition of this infant in December, 1824. (*Lond. Med. and Phys. Journ.* 1825).

The fœtal extremities are sometimes luxated during intra-uterine life. M. Chaussier saw a fœtus whose two legs, knees, feet, and three fingers of the left hand were luxated. MM. Dupuytren and Billard describe spontaneous luxations of the thigh bone in very young infants. (*Mem. sur un déplacement originel ou congenital des femures*. Par M. Baron Dupuytren—*Repertoire du Anatomie*, t. 2).

M. Chaussier has also described fractures of most of the bones of the fœtus during intra-uterine life. M. Devergie reported to the Royal Academy of Medicine, in Feb. 1825, a case of intra-uterine fracture which occurred at the sixth month, in consequence of the woman having fallen on her abdomen against the corner of a table. The pain was at first excessively acute, but gradually abated. She was delivered at the full time, of a healthy infant, which presented a large tumour in the region of the left clavicle. It died on the eighth day after birth, and, on examining the body, the clavicle was found fractured; the broken pieces rested on each other, and were united by a large callus, which formed the tumour already described. (*Archives Gen. de Med.* 1825, t. vii). This case proves that the clavicle of a fœtus in the womb, at the sixth month of pregnancy, may be fractured by a fall or blow on the abdomen of the mother, and that it may be consolidated before parturition.

The following case is related in a German journal, by Dr. Carus, and published in the *Archives Generales de Medecine*, 1828:—A young woman, aged 25 years, of a good

constitution, and in the sixth month of pregnancy, fell upon the abdomen, and she felt the infant violently shaken, but its movements very soon ceased. She was delivered at the full time of a very feeble infant, which appeared to be dying, and on whose right leg was a wound nine lines in length. The edges of this wound were pale and flaccid—it extended from one ankle to the other—and affected the skin and muscles. The tibia was fractured, its body was separated from the inferior epiphysis, and the periosteum was destroyed. The whole of the diseased parts presented a most unfavourable aspect. Attempts were made to adjust the fracture, but the wound sphacelated, and necrosis supervened. The disease extended rapidly, and the infant died on the third day. It is therefore evident, from this case, that a disease may be inflicted on the fœtus while in utero, which may speedily destroy life after birth.

The preceding observations also attest the fact, that blows or injuries inflicted on the abdomen of a pregnant woman may fracture the bones of the infant in her womb from the sixth to the ninth month of its existence, which is a point of importance in medico-legal inquiries. If this fact is true, and none can doubt the proofs of it, it is reasonable to conclude that blows or falls on the abdomen may be inflicted on the head of the fœtus in the womb, and may fracture the skull, cause concussion or compression of the brain, and death. It is only a few months ago since my valued and experienced friend, Dr. Blicke, of Walthamstow, requested the opinions of Dr. Merriman, Dr. Blundell, and myself, on this point, at one of the Courts in Westminster. None of us could speak from personal observation, as we had not met a case of intra-uterine fracture.

It is scarcely necessary to observe, after the foregoing remarks, that fractures of the bones of the infant may occur during parturition, either by malformations or contractions of the maternal pelvis, or by the rudeness of the obstetrician, whether male or female.

Deformities of the joints are also observed in infants at birth, as noticed on a former occasion. In fine, inflammation and supuration of the joints of the extremities have been observed in new-born infants. There is an interesting case in my Journal, which I shall read to you.—(*See Lond. Med. and Surg. Journ.*, edited by Dr. Ryan, vol. vi, No. 138, Sept. 1834.—*Observations on Acute Arthritis in New-born Infants*—Thesis sustained by Jules Teilhard Terrise before the Faculty of Medicine of Paris, Dec. 5th, 1833, translated by Alexander Thomson, M.B. of St. John's College, Cambridge).

The following is the substance of M. Terrise's thesis. The author remarks that he could not find any account of acute arthritis in the annals of medicine from the earliest period to 1833, but that the experienced

M. Baron had informed him that he had occasionally observed the disease. M. Terrie observed in the body of a very young infant inflammation of the hip, knee, and shoulder joints, with pus between the adjacent muscles. There was no symptom of these diseases during life.* In an infant of four days old there was pus in the hip, knee, ankle, and wrist joints. The shoulder joint was inflamed in an infant of six days of age, and purulent matter between the adjacent dorsal muscles. I have repeatedly observed suppuration in the elbow, wrist, knee, and ankle joints in very young infants, which supervened immediately after malignant small pox, and you have seen a remarkable case this day at the Free Hospital. My friend, Mr. Appleton, of Holborn, requested me, some time since, to visit a case in Baldwin's Gardens, in which the elbow, wrist, knee, and ankle joints contained a white ill-conditioned pus.

Diseases of the Lymphatic System.—These maladies are rarely observed in infants at birth, but are developed occasionally at the eighth month of life. The mesenteric glands are the first affected of the lymphatic system. It is easy to account for this fact—infants are almost invariably overfed, or have improper aliment. Irritation in the duodenum is the consequence, and this is transmitted from the orifices of the lacteals in the duodenum to the mesenteric glands. These become inflamed, enlarged, and impervious, a sufficient quantity of chyle or nutrition is not conveyed into the thoracic duct or circulation, the whole body and extremities emaciate, though the appetite is great or voracious, and the abdomen becomes tumefied. Scrofulous and rachitic infants are most subject to this disease, which is technically denominated *tabes mesenterica*. The history of this complaint does not apply to new-born infants in general. The glands of the neck are next most frequently affected, and then those of the tracheæ and roots of the lungs.

M. Billard has found tubercles in different parts of the bodies of infants. Thus he observed tuberculous granulations in the peritoneum of an infant that died four days after birth; and in two others the mesenteric glands were enlarged. In four infants there were tuberculous granulations in the liver and spleen, and in two of these in the lungs. It is very important to state that this industrious pathologist also observed tubercles in the lungs of infants which were born dead or before the full time of uterine gestation. M. Husson has also reported two cases to the Royal Academy of Medicine; the first infant was born dead at the seventh month, and the other survived for eight days: the first presented pulmonary tubercles softened, and some in a state of suppuration, though the mother was not phthisical; and the liver of the second was tuberculous.

M. Billard observed pulmonary tubercles, in 1826, in four infants who died from the first to the fifth month. M. Baron had predicted the disease in one of them. According to these writers, the symptoms of phthisis in adults were absent. Pulmonary tubercles in infants are transparent, small, round, and disseminated on the surface, tissue, and root of the lungs. These observations prove that phthisis may attack infants in the uterus, a fact contrary to the opinions of many modern writers.

Scrofulous or glandular enlargements may appear in infants from the first to the seventh year, and in children from this period to puberty; but they rarely occur afterwards. The disease most commonly attacks infants of a lax habit, with smooth soft skin, and fair hair, a peculiar fulness and rosy appearance of the face, large eyes and upper lip, and a delicate complexion. It also attacks children predisposed to rachitism, in whom the head, abdomen, and joints are remarkably large. The exciting causes of glandular enlargement are cold and variable climates, crude and indigestible food, bad water, damp and low situations, hereditary predisposition, syphilis, and debility, however induced.

The indications of treatment are to improve the general health by tonics, chalybeates, iodine, nutritious aliment, animal and vegetable jellies, pure or sea air, living on the sea-side, wearing flannel next the skin, &c. I have found the greatest benefit from the use of hydriodate of potass used internally, and applied to enlarged glands, or to the abdomen when tumefied. To infants from a year to five years old, I exhibit from three to six grains of hydriodate of potass to the ounce of distilled water, in the dose of a tea-spoonful three times a-day, sweetened at the time of taking. The ointment may be composed of six or ten grains of the hydriodate, or ioduret of lead, to one ounce of lard, and a drachm may be rubbed over the affected part morning and evening, unless it reddens the skin, when it should be discontinued until this appearance has ceased. These medicines, with the preceding, have the most beneficial effects in every form of scrofula, mesenteric disease, enlargement of the glands in the neck, white swelling, and inflammation of the joints in scrofulous subjects. I have seen numerous successful cases in my hospital, dispensary, and private practice, and I am convinced that no one depreciates iodine or its preparations, who has used them with genuine, or tried them fairly. The students of my class have ample opportunities of observing multiplied proofs of this statement. I have fully expatiated on the use of iodine in my edition of Hooper's Physician's Vademecum and Formulary of Hospitals.

Diseases of the Organs of the Senses.—Development and Diseases of the Eyes.—These organs are scarcely capable of performing

their functions, in infants born before the end of the sixth month of pregnancy, and some authors say not until the seventh, eighth, or ninth month. The eyelids are generally agglutinated until the sixth or seventh month, and the sclerotic tunic is very thin and transparent. The cornea is not fully developed at an earlier period. It is at first in contact with the anterior surface of the crystalline lens, and is separated from it, by the secretion of the aqueous humour. The iris is usually covered by the *membrana pupillaris* until the seventh month, when this membrane ruptures in the centre, and retracts towards the circumference, on account of the arrangement of its vessels, which offer opposite arches, which are not adherent at their convexities or contiguous parts. When the pupil dilates, the aqueous humour which was situated behind the iris escapes in front of this membrane, and forms the anterior chamber. The vitreous humour, which is at first red, gradually loses its colour and becomes transparent. The lens is at first fluid, and by degrees becomes thick and lenticular.

The permanent occlusion of the iris, eyelids, and congenital cataract, require operations which ought not to be performed in the early months of life, and these are described in the surgical works. There are numerous vices of conformation of the globe of the eye, as when the organ is too prominent or diminished in size, or when united to its fellow, forming one body on the median line, and termed *cyclopsy*, or *monopsy*, which is irredeemable.

In some cases the axis of vision is imperfect at birth, or the newly-born infant fixes its eyes on brilliant objects, looks obliquely, and acquires squinting or strabismus. This disease, however, often depends on imperfection of the organization of the brain, or the muscles of the eyes, and in such cases is generally incurable. It may, however, be acquired after birth, by placing the cols or beds of infants obliquely towards the light, and then a change of position, and the use of goggles so constructed as to admit light in an opposite direction to that to which the eye is directed, or in the axis of vision, may sometimes effect a cure.

Ophthalmia of New-born Infants—(O. Neophytorum).—The commonest disease of the eye in new-born infants is conjunctivitis. It is to be recollected, that the tunica conjunctiva is a mucous membrane, which lines the eyelids, and is reflected over the sclerotic tunic, and according to most modern anatomists over the cornea. When any part of the conjunctiva is inflamed the disease may affect the whole extent of the membrane, and consequently that portion over the globe of the eye. In mild cases, conjunctivitis is limited, but in severe examples, it becomes extensive and may destroy all the tissues that compose the organ of vision, both in infants and adults. This result very rarely

happens in the simple or mild forms of the disease.

The symptoms of this species are more or less redness and tumefaction of the eyelids, intolerance of light, and the infant turns its head into the opposite light, and cries when the lids are examined. The pain is caused by the irritation of light, or the mechanical friction of the globe of the eye upon the inflamed conjunctiva. On separating the eyelids, we find the inner surface more or less inflamed, and the globe of the eye unaffected, unless the disease is severe. Such is the first degree of ophthalmia of new-born infants, and it supervenes from the first to the sixth day after birth.

The causes are exposure to the light of a fire, candle, or the sun, when brilliant; cold or damp atmosphere; mechanical injuries; the passage of soap lather or ardent spirit into the eyes, when the new-born infant is being washed. The disease is also induced by removing the infant from the chamber of the mother in cold weather, into the lobby, drawing-room, &c.

Treatment.—When the disease is slight, the application of cold water or rose water, by means of a thin fold of muslin, with a slight aperient, and darkness of the apartment, will be effectual. It is the practice, at the hospital for infants, at Vienna, to apply thin folds of muslin wetted with cold water constantly over the eye or eyes. It is to be borne in mind, that in treating diseases of the eye, lotions are applied externally to the lids, either hot or cold, and also directly to the affected part. Thus, cold lotions or cataplasms are applied to the lids internally, while a lotion is directly applied to the conjunctiva by being dropped into the eye. Leeches are seldom necessary, unless when the inflammation is severe. In such cases, one small or middle sized leech may be applied to the external angle of each eye, according to M. Baron of Paris; or to each upper eyelid, if we follow the practice of Mr. Lawrence, who states that he has repeatedly observed severe collapse produced by the application of a single leech. He further advises, when the inflammation is subdued, a solution composed of two, three, or four grains of alum to each ounce of rose water as an astringent, and this is to be injected between the eyelids three or four times a day, so as to remove all secretion, and constrict the affected blood vessels; to which I add a few drops of the sedative solution of opium. The bowels ought to be regulated with castor oil, magnesia, manna, rhubarb, &c. according to the age and strength of the infant.

When this disease attacks infants, from one to seven years of age, it may be necessary to scarify the lower eyelid, and to apply counter-irritation by means of blisters, or antimonial ointment, behind the ears, or to the nape of the neck. It is now considered bad practice to apply leeches round the eyes,

or to the temples, or counter-irritants on the temples, in cases of infantile or adult ophthalmia.

When the disease becomes subacute, a stronger solution of alum, or the compound solution of this medicine of our pharmacopœia, properly diluted, is of essential service. Some strongly advise two or three grains of sulphate of zinc to each ounce of distilled rose water, and others recommend a solution of the sulphate of copper, more especially when the surface of the eyelids is granulated. This last remedy is necessary in cases of children from the seventh to the fourteenth year, or of adults, but scarcely ever, according to my observations, in cases of infants from birth to the seventh year.

Catarrhal Ophthalmia.—This differs in no respect from simple conjunctivitis, unless that it is more severe, and the eye is chemosed or blood-shot. The cause is cold, and as the disease is often common among children at certain seasons, and also among adults, it is held by some writers to be contagious.

The treatment is the same as in the last form, but more active. Some practitioners apply a weak solution of nitrate of silver, (one or two grains to the ounce of water) and others a much stronger ointment, ten grains to a drachm of lard, introduced between the eyelids, on the globe of the eye. This practice is seldom necessary, according to my experience.

Purulent Ophthalmia.—When the preceding diseases are violent and terminate in suppuration, conjunctivitis has been termed purulent, or Egyptian ophthalmia. In this species there is a copious discharge of a thick, yellow, muco-purulent fluid, which distends the eyelids, agglutinates them, but when they are separated with the fingers, flows abundantly over the cheek. The eyelids become so swelled and distended in the course of one day, that they cannot be opened unless by considerable force. On separating them to allow the matter to escape, and wiping off any that remains on the eyelids and globe of the eye, we often observe œdema of the subjacent cellular membrane, and the cornea buried in the folds of the distended conjunctiva.

This extensive disease produces most agonizing pain in adults, and is so severe as often to destroy new-born infants.

The causes of this disease in new-born infants, are acrid discharges of the mother, such as the purulent form of leucorrhœa, or gonorrhœa, either of which may come in contact with the infant's eyes, during its passage into the world. The disease, however, may appear in a mild form, independently of these causes. It is important to state, that it often destroys vision, and sometimes life. When it arises from the preceding causes, the symptoms are as follow: the inflammation becomes violent, the sclerotic tunic is injected with blood, chemosed,

or to use a popular term, blood-shot, the external and internal surfaces of the eyelids become vividly inflamed, there is an abundant secretion of pus from the conjunctiva covering the globe and lids of the eye, the latter are agglutinated, and the purulent matter accumulates behind them, so that on separating them, it flows over the cheek, and the infant cannot open its eyes. If we inspect the conjunctiva we find it intensely inflamed, the folds of this membrane, which exist between the globe of the eye and inner surface of the eyelids are swollen, and present on their surface small granulations, and when the infant cries the lids are everted, and a temporary ectropium is produced. During the progress of this kind of inflammation, the suppuration becomes most abundant, it varies in colour and consistency, it is generally thick, and of a yellowish white colour; but it may be mixed with blood, or in some cases a sanguineous exhalation takes place, when the pus is wiped off, or removed. In the last stage of the disease the purulent matter may assume a greenish yellow colour; and if jaundice exists at the same time, it may be perfectly yellow.

Every one who knows the anatomy of the eye, and who is acquainted with the science of surgery, is aware that palpebral inflammation (that of the eyelids) may readily pass to the globe of the organ of vision, and cause destruction of its tissues, and often complete loss of sight.

The most common effect of purulent or gonorrhœal ophthalmia is opacity of the cornea; and ramollissement, ulceration, perforation, &c., are fortunately of comparatively rare occurrence; when the primary disease is treated judiciously, they rarely occur; as the inflammation diminishes, the purulent secretion and tumefaction of the eyelids gradually cease, and the opacity of the cornea is generally, but not always, removable. But when the inflammation advances, the cornea may be destroyed, and all the ravages already described may be produced. In such cases, the pupil will be more or less deformed, according to its adhesion with adjacent organs.

The prognosis must be arrived at, after due consideration of the progress and intensity of the inflammation. The disease may continue for a few days, or for weeks, or months.

It is necessary to observe, that opacity and ramollissement of the cornea are not always caused by purulent, or rather puriform ophthalmia; and that these states may also be induced by gastro-intestinal irritation. This fact is proved by the observation of M. Magendie, that a dog fed on sugar, suffered from ulceration and perforation of the cornea.

I shall briefly examine the results of the extension of purulent ophthalmia. The contiguity of the cornea to the conjunctiva, and

the adhesion between these parts, render it clear that the diseases of the latter may readily extend to the former, and thus, inflammation of the cornea (keratitis or corneitis) is one of the most common consequences of conjunctivitis; and opacity, nebula, or pearl, ramollissement, or perforation, may be the usual result.

Opacity occurs in such cases, in the same manner as in adults, in consequence of the effusion of coagulable lymph or puriform matter between the layers of the cornea, or the conjunctiva which covers that part of the eye. This opacity may be more or less extensive; it may be a small speck, or cover the whole cornea, but it is fortunate that in either form it is generally removed in cases of young infants, after the cessation of the inflammation, by appropriate means which will be hereafter described.

Ramollissement, or softening of the cornea is much more serious, and is of occasional occurrence. When it commences, the cornea loses its clearness and polish; it presents one or many points of a greyish or brown colour, and these are distinguished by a line of demarcation from the sound parts. The centre of the ramollissized or softened part is speedily perforated, and a communication is established between the atmosphere and the anterior chamber of the eye, and as soon as the artificial aperture is made, there is an effusion of the aqueous fluid. This aperture is generally opposite to the pupil, and is sometimes so large as to allow the escape of the crystalline lens and vitreous humour, whose coverings are previously destroyed by inflammation and ulceration. Under such circumstances, the lens and humours, or fluids of the eye being expelled, the eye diminishes in size, and vision is completely and irremediably destroyed. It sometimes happens, however, that after the perforation of the cornea, the iris protrudes, or is prolapsed, so as to prevent the expulsion of the lens and vitreous humour; but in such case, unless the protruded part be restored to its natural situation, imperfect vision or total blindness will follow.

Protrusion or prolapsus of the iris is a common disease when the cornea is perforated by wounds, as I shall notice hereafter; as when children wound the eye with sharp instruments, such as penknives, scissors, nails, &c.

Ulceration differs but slightly from ramollissement; it generally occurs in the centre of the opaque part, and its edges are tumefied.

These general observations having been premised, it remains to notice the treatment of purulent, Egyptian, leucorrhœal, and gonorrhœal ophthalmia, which, pathologically speaking, are the same disease; and then I shall notice the symptoms and treatment of those morbid alterations caused by it.

Treatment.—Antiphlogistic remedies must

be vigorously employed; venesection, leeching, cupping in grown children, purgatives, tartarized antimony in nauseating doses, the oleum terebinthinæ, and blisters. The local remedies are, strong solutions of the liquor plumbi subacetatis, nitrate of silver, sulphates of zinc and copper, the wine of opium in former pharmacopœias, the ointment of nitrate of silver, or the black ointment of Mr. Guthrie, and lastly, the application of the unmixed nitrate or lunar caustic.

In cases of infants or children, there is generally more or less gastro-intestinal irritation or inflammation, and repeated doses of tartarized antimony, or of oil of turpentine, are contra-indicated, though highly efficacious in cases of adults. Mr. Travers proposed the first remedy, and Mr. Hugh Carmichael, the second. In cases of adults, Dr. Vetch bled to the amount of fifty or sixty ounces; but fifty of his patients out of six hundred and thirty-six, lost the sight of both eyes, and forty more became blind of one eye. Mr. Lawrence advised bleeding in gonorrhœal ophthalmia, while blood could be got from a vein, (on the Venereal Diseases of the Eye, 1829), a practice which few, if any, I apprehend, would be so rash as to follow, and which the adviser has since thought fit to retract. (A Treatise on Diseases of the Eye, 1834). The received opinion at present is, that the most copious depletion will not prevent the destruction of vision, and that local bleeding is much more efficacious, as the disease is local, and seldom excites constitutional disturbance. Dr. O'Halleron, who had vast opportunities of treating the disease in the army, declares that bleeding is unnecessary, and that he has cured hundreds of cases with the stimulant treatment, and always with the greatest success. He was the first who applied strong solutions of sulphate of copper and nitrate of silver. Dr. Ridgeway, also an army surgeon, was the first to recommend very strong solutions of the last remedy. It is now used in this form by Mr. Guthrie, and also in ointment, at the Royal Westminster Ophthalmic Hospital. This ointment is the following:—

R. Argenti nitratis, gr. x;
Unguenti cetacei, 3j;
Liq. plumbi acet., m. x.

Fiat unguentum in usum.

The eyelids are separated, so as to allow the purulent matter to escape, and any that may remain is removed with a dosil of lint. A piece of ointment, varying from the size of a pin's head to that of a garden pea, is introduced on a probe between the eyelids, which close, and are then rubbed with the finger for a few seconds. The remedy is reapplied every second or third day. The application is not so painful as is generally supposed; but I do not think it necessary in a majority of cases of infants. The solutions used at the above hospital, vary in

strength from one grain to twelve in an ounce of distilled water.

Mr. Walker, of Manchester, applies nitrate of silver to the inner surface of the eyelids with great advantage. (The principles of Ophthalmic Surgery, &c., 1834). "The pain," says this able writer, in his admirable manual, "is not so severe as many persons may suppose, and soon subsides. It is in truth no caustic for destruction of surface, or at all events very slight, and consequently no cicatrization ever results from its use. Little else need be done. Attention to cleanliness, and the frequent washing out of the matter from the surface of the eye, with a solution of alum or sulphate of copper, with attention to the general health, as may be required, constitute the essential points." I entirely assent to the advice of this author so far as lotions are concerned, but I entirely differ from him and others, who use too strong an ointment of nitrate of silver, or the lunar caustic, indiscriminately, more especially in cases of children—I might almost say in adults; for you have all seen a patient whose vision was destroyed by this remedy, and who attended the Royal Westminster Ophthalmic Hospital, St. George's Hospital, and Mr. Stevenson's Eye Dispensary, for two years and seven months, without any relief. This man was led to the Free Hospital. Both corneæ were of a horny colour, with enlarged vessels traversing from both sides of the sclerotic tunic, the eyelids were covered with villousities, or what some term granulations. His general health was duly attended to, and he was ordered the following lotion:—

Rx. Liq. alum. c. Ph. Lond., ʒij—iv;
Aqua rosæ desill., ʒvj—viij;
Liquoris opii sedativ., ʒss—j.

This remedy was prescribed with a view of diminishing the size of the vessels which were in a state of chronic inflammation, and likewise to promote absorption of the effused lymph which obscured the corneæ. It produced the desired effect after some weeks, and the patient is now able to see his way, and to read the names on the sign boards as he walks along the streets.

He continues an out patient of mine, as he is subject to conjunctivitis from exposure to cold, and any member of the profession may see him and hear his own statement on my days of attendance at the hospital. I mention this case to prove that violent stimulants applied to the eye may do great mischief, and that a milder plan of treatment, which is generally adopted by the profession, is sometimes, I should say generally, more beneficial.

In purulent, leucorrhœal, or gonorrhœal ophthalmia of infants, when the cornea becomes opaque or ulcerated, Mr. Walker advises the application of the pure nitrate of silver. He conceives that we never need allow any case to get worse under this treatment efficiently employed. It would, in

my opinion, be unnecessary to use it in a mild case. According to my experience, astringent and less stimulant applications are generally successful. There are but few cases which require the use of the nitrate of silver alone or diluted.

Strumous Ophthalmia.—This term is applied to conjunctivitis in strumous or scrofulous habits. It is very common in infants, children, and young persons, and frequently observed in adults.

The symptoms are great intolerance of light, the infant or child closing the eyes firmly and turning from the light, copious lachrymation, more or less tumefaction of the eyelids, sometimes of the face and glands of the neck; and on examining the eye, we observe phlyctenulæ or small pustules on the margins of the cornea. The intolerance of light is so great, that some have supposed the retina must be affected, or that there is retinitis combined with this disease. It is not difficult to disprove this opinion. The infant is observed to open its eyes during twilight, and sometimes during sunshine, when its back is towards the light, which it could not do had it laboured under retinitis. This form of disease is often complicated with eruptions about the eyes, on the cheeks, forehead, and chin, which form scabs or crusts, or that disease which the older dermatologists termed *crusta lactea*, and the moderns, *porrigo larvalis*.

The causes of this form of ophthalmia are a peculiar diathesis or state of constitution, bad living, clothing, want of cleanliness, exposure to cold, &c.

The indications of treatment are to improve the general health, as in scrofula, by mild aperients, tonics, quinine, carbonate of iron, pure air, warm clothing, sea air, &c., and nutritious aliment; by alteratives, as the mild preparations of mercury, hydrargyrum cum creta, with rhubarb, carbonate of iron, quinine, &c., with leeches and blisters behind the ears, or to the nape of the neck, and other antiphlogistic measures. The method I adopt in such cases is, first to regulate the bowels and abdominal secretions, and to apply a lotion of the liquor plumbi acetatis, diluted with rose water, to which is added the sedative solution of opium.

It is seldom necessary to apply any remedy to the *porrigo* or *crusta lactea*, except ablation with white and not yellow soap and water; and when the scabs are removed, the ulcerated surface may be sprinkled with flour or hair powder. It often happens that the whole face and forehead may be covered as if with a mask, formed by one mass of scab; and parents are generally alarmed lest their infants should be marked. This disease, however, never causes marks or deformities, and generally disappears during the use of the remedies already mentioned. It is sometimes extremely obstinate, but its treatment in such cases will be stated, when I describe diseases of the skin.

Pustular Ophthalmia.—This disease is nothing but conjunctival inflammation, accompanied by pustules round the margin of the cornea, or on the inner surface of the eyelids. It is most common to infants, children, and young persons.

The treatment is the same as in the last disease, with the addition of applying nitrate of silver, or stimulant lotions.

Erysipelatous or Edematous Ophthalmia.—This term is applied when conjunctivitis is followed by a serous effusion into the cellular tissue beneath the affected part; and the causes are the same as in the disease from which it derives its name.

Treatment.—When the inflammation is severe, antiphlogistic measures will be necessary, with warm fomentations, blisters, and other counter-irritants. When the disease becomes chronic, the remedies already enumerated for the treatment of conjunctivitis will be necessary, and also those medicines which excite absorption.

Variolous, Morbillous, and Scarlatinous Ophthalmia.—It often happens during exanthematous eruptions, such as small pox, measles, and scarlatina, that the conjunctiva becomes inflamed, and that the cornea or other tissues of the eye may become affected.

The treatment must be modified according to the species of disease, in the manner already mentioned. When pustules form on the cornea in small pox, the sense of vision is often destroyed; and this proves the vast superiority of vaccination.

Chronic Diseases of the Conjunctiva.—The chronic diseases of the conjunctiva are granulations, ulcers, fungus, chemosis, ecchymosis, pterygium, pannus, xerosis, or xeroma.

Granulations of the Conjunctiva are caused by inflammation, and often follow purulent and other forms of ophthalmia. They consist in a number of small soft elevations, or fleshy growths, similar to those observed on ulcers, and by their pressure on the cornea, inflame it and cause opacity or ulceration of that tissue.

The chief object to be accomplished, is the removal of these growths by means of astrigent and stimulating lotions, such as solutions of alum, zinc, &c.; and if these fail, some practitioners strongly advise the application of nitrate of silver, or sulphate of copper every day, or other day, until the conjunctiva regains its natural smoothness. According to my experience, which has been very extensive, the disease will generally yield to the astrigent solutions, and the more powerful caustics are unnecessary in the majority of instances. These will also excite the absorption of the opacity of the cornea. Fungous growths, and ulcers of the conjunctiva, disappear by the same treatment.

Chemosis and Ecchymosis of the Conjunctiva.—The first term is applied when the conjunctiva is blood-shot or highly vascular, and the second, when it is partially so. Both

are symptoms of some form of ophthalmia, and will be removed by antiphlogistic measures.

Pterygium is a vascular membrane or fleshy growth from the conjunctiva, of a triangular form, the apex extending and adhering to some part of the cornea. It may gradually develop, unaccompanied by inflammation, but generally succeeds purulent, or some severe ophthalmia.

It may be removed by the use of nitrate of silver or sulphate of copper; but it sometimes requires excision. This is effected by seizing it with fine forceps, and excising it with a pair of scissors, and then applying cold, and other antiphlogistic measures.

Pannus.—This disease consists in the expansion of a highly vascular membrane over the conjunctiva and cornea, which is caused by some form of inflammation. Astringent and stimulant collyria usually remove it; and if these fail, solutions of nitrate of silver or sulphate of copper may become necessary.

Xerosis—Xeroma Conjunctiva, is that condition of disease in which the affected tissue loses its character of mucous membrane, and assumes the appearance of common integument. It is of very rare occurrence. I have seen one example only, in which both eyelids partially adhered to the globe, and the eyes remained permanently opened.

—o—

CLINICAL REMARKS

ON

CASES IN THE NORTH LONDON HOSPITAL,
BY MR. COOPER.

—

Suppuration under the Dura Mater, following Contused Wound of the Scalp—Autopsy—Compound and Comminuted Fracture of the Olecranon—Fracture of the Thigh—Amputation of the Arm—Condition of the Amputated Limb, on Dissection.

GENTLEMEN—In this Clinical Lecture I will first bring under your consideration some particulars of the case of James Sadler, a hackney coachman, aged 51, who was admitted on Saturday the 31st of October, on account of a wound of the occiput, occasioned by a fall on the pavement from the box of his coach. The wound was of the contused lacerated description, attended with a good deal of swelling from extravasation of blood in the adjoining cellular tissue, a large branch of the occipital artery having been divided. The pericranium was not detached. The man had been stunned by the fall, but quickly recovered, and was not sick, a consideration proving that the blow was not a severe one.

On his arrival at the hospital, he was perfectly sensible, and his pulse natural.

Mr. Quain saw him directly after his admission. The wound was dressed, and in the evening, the patient finding himself well

enough, went home. He took five grains of calomel and a drachm of the pulvis jalapæ comp. and was directed to restrict himself to a low diet, and keep himself as quiet as possible.

On Nov. 2nd, the patient came to the hospital again; his bowels had well opened—the swelling had subsided, and the wound was looking favourably.

On his coming to the hospital, on the morning of the 7th, a week from the period of the accident, he complained of being generally unwell, and of pains and stiffness in his joints, especially those of the upper extremities. The wound in the head had undergone a change for the worse; on inquiry it was found he had had a rigor, followed by pyrexia, which had been going on for three or four days. It was, I think, the neglect of himself during those days, that gave an opportunity to the disease to reach a stage which afterwards proved fatal. He was now taken into the house, put on low diet, and the wound was poulticed. The pulse was but little disturbed, and the bowels were opened.

On the 8th, the pain and stiffness in his wrists and shoulders were diminished. He walked about the ward, and conversed cheerfully with the patients; he also requested to be allowed meat, but this was refused. On the 9th he was much better, had passed a good night; his bowels were open. At five in the afternoon he took his tea and was in excellent spirits. At seven he was seized with another rigor, and felt very unwell, but would not permit the house-surgeon to be sent for, observing that he should soon be better. On the 10th his pulse was 120 and full; there was slight difficulty of speech, no stertor, his pupils active, but a degree of stupor about him. On the 12th I saw him, and considered it to be a case threatening suppuration beneath the cranium. He was bled to $\frac{3}{4}$ xvi, and a purgative consisting of eight grains of calomel, and the senna mixture given him. As the foregoing quantity of blood did not affect the pulse, the bleeding was carried to $\frac{3}{4}$ xxiv. The medicine operated freely, but the man became more and more insensible, and died at 8 o'clock next morning. The blood taken away presented a buffy and cupped appearance. On examining the body 24 hours after death, the following appearances presented themselves. The pericranium was uninjured and adherent to the skull. On opening the cranium, a quantity of turbid serum escaped. The dura mater was evidently less closely attached to the part of the inner table below the external wound than elsewhere. Beneath the dura mater, the whole surface of the right hemisphere was covered with a thick coating of yellow pus, and the left hemisphere presented appearances of increased vascularity and turgescence. No lesion was detected in the viscera of the abdomen or thorax.

Remarks.—Gentlemen, this case appears

to me full of instruction. A man meets with a contused wound of the scalp, from a fall, which stuns him for a few minutes; he soon recovers his senses; the wound is dressed; he takes a cathartic, and returns to his home, where he probably soon resumes his usual diet and mode of living. He remains free from any serious indisposition, however, for about a week, when he is attacked with shiverings, pains in his limbs, and other febrile disturbance, for which he seeks no surgical aid for three days. On being now received into the hospital, and kept quiet and on low diet, he at first gets better, but dies in the course of three or four days, from the effects of inflammation of the dura mater, with suppuration under it, and an effusion of turbid fluid between it and the cranium.

I believe this patient only came under my observation on the 12th of November, when I found him affected with a degree of stupor and an impediment of speech, proving that effusion of fluid, on or within the brain had already commenced. Gentlemen, I also pointed out to you at the time, the unhealthy, unfavourable appearance of the external wound, the surface of which was pale and covered with a scanty quantity of ichorous matter. It seems, however, that the pericranium had not separated from the bone, and the wound was not surrounded by puffy œdematous swelling—two circumstances which are particularly noticed by Pott, as indicative of suppuration on the dura mater beneath the injury. In the case before us the pus was not directly under the cranium, but on the surface of the right hemisphere, beneath the dura mater. The dura mater, however, was loosened from the inner table, and a turbid serous fluid had accumulated between them. Had the man lived a little while longer, probably pus would have been deposited also in this situation, and the œdematous swelling of the scalp and a detachment of the pericranium from the part of the skull near the wound would have ensued. The case is practically instructive, as exemplifying the necessity of rigorous antiphlogistic treatment of every patient who meets with a contused wound of the scalp, and any degree of concussion of the brain, sufficient to stun him, though only in a slight and transient way. If you refer to the writings of Pott, you will find many instances of persons who had had what could not be called severe knocks on the head, such as were scarcely forcible enough to stun them, and who found themselves well enough to neglect the aid of surgery, and returned to their usual avocations and modes of life. In particular, they neglected to avail themselves of venesection, active calomel purgatives, low diet, and a perfectly quiet regimen. Some of them even enjoyed themselves for three or four weeks, and were then attacked with rigor, pain in the head, and general uneasiness in their limbs, fol-

lowed by heat and dryness of the skin, thirst, and an accelerated full pulse. At the same time, if there was a wound on the head, its appearance suddenly changed, the granulations losing their healthy vermilion colour, the surrounding part of the scalp becoming œdematous, and the pericranium detached. Some degree of delirium may come on, and then, if the disease increases, symptoms of pressure from effusion within the skull, the consequence of inflammation having continued too long unsubdued. In our case, the particular symptoms of such pressure, from effusion, were the stupor and difficulty of speech. The great practical inference from the history and observations now delivered, is, that whenever you are called to a patient who has received a blow on the head, though it may be only such as stuns the individual for a short period, you must urge the prudence of his being freely bled without delay,* of his taking brisk cathartic medicines two or three times a week, and of confining himself to a very low diet, and quiet regimen. Should these precautions fail to arrest inflammation of the membranes of the brain, which will sometimes begin three or four weeks after the accident, ushered in by an attack of severe shivering, you should then endeavour to check the progress of the inflammation by bleeding, calomel, tartarized antimony, cold evaporating lotions applied to the scalp, and leeches, followed by blistering.

Compound and Comminuted Fracture of the Olecranon—Fracture of the Thigh. Amputation of the Arm.

The next case, gentlemen, is that of Charles Hussey, on which I made some clinical remarks about three weeks ago*,

* The following is the case, as given by Mr. Cooper on the occasion:—Charles Hussey, aged 36, a slater, was admitted October the 15th. He had fallen from a ladder, at the height of a third story of a house, in consequence of one of the steps breaking as he was ascending. The femur was broken transversely, about the junction of its middle with its lower third. There was also a compound and comminuted fracture of the olecranon of the left arm. With the point of the finger, some fragments of bone could be felt within the wound, and one small piece was so loose, that it was taken out. The extremity of the olecranon was retracted by the triceps. The patient complained of pain in his side and back, where he had received some severe contusions. The thigh was put up with a long splint, in the straight position, and the elbow was extended by means of a splint in front of the joint, the arm having been previously bandaged from the fingers upwards. As there was a good deal of blood oozing from the wound, the sides of it were not brought

concluding with stating my opinion, that it was exceeding doubtful whether the arm could be ultimately saved. Indeed, on the 20th of October, five days after the accident, I had proposed amputation, considering it then would have afforded the best chance of saving the man's life. I deemed it right, however, to have a consultation with Messrs. Liston and Quain, and the result was a decision to endeavour to save the limb. The bandage having been removed, a considerable quantity of sanious matter flowed out of the original wound. Fomentations and poultices were applied, and the limb laid on a pillow.

Oct. 22nd.—I made an incision over the elbow, and let out about half a pint of reddish brown matter. On the 23rd, his pulse was 116. Another considerable abscess over the triceps muscle was opened. The broken femur, which had been put up in long splints in the extended position, was this day also examined, and the bandages and splints re-adjusted. On the 24th, the pulse had fallen to 100. The fore arm was placed in a lower position, in order to prevent the pus from gravitating towards the shoulder. The patient was allowed two glasses of port wine and some beef tea. In the evening, the skin was hot, but moist; the pulse 120. On the 25th the bowels were opened with castor oil. Copious discharge from the arm. Rests pretty well at night, without an anodyne. On the 29th, the report is, he went on favourably until yesterday. The sub-sultus tendinum and delirium had subsided. The pulse had gone down to 96, and become soft. The tongue had been clean and moist, and the skin natural. But on the night of

together till the next day; a cold evaporating lotion was applied.

October 16. This morning a considerable swelling has extended up the limb, with ecchymosis over the olecranon; the bandage was therefore slackened. The man has passed a quiet night.

17. Febrile excitement increased; pulse 120. Some calomel and antimonial powder were prescribed, followed by the senna mixture, and afterwards by the camphor mixture, with small doses of tartarized antimony and nitrous spirit of ether every three hours. The patient is not quite rational; raises his arm from the pillow; pulse 135, but compressible; bowels very freely opened; the patient's manner anxious and quick, and countenance much changed for the worse: he is constantly moving the injured arm: eight leeches applied to the elbow.

18. Arm much swollen and discoloured; cuticle separating over the triceps; copious effusion of serum in the cellular tissue, up to the shoulder.

Extensive ecchymosis over the glutei muscles, forming a very dark coloured swelling. Leeches repeated. Pulse, 135; tendency to delirium at times.

the 28th, about 12 o'clock, he became exceedingly restless, threw the fractured limb off the bed, and removed his shirt, talking at the same time in the wildest manner. The night nurse neglected to inform the house-surgeon of these unfavourable circumstances.

Next morning the patient had less delirium, but was still somewhat incoherent; his pulse was 136. I directed a grain of the muriate of morphia to be given immediately, and suggested that benefit might result from keeping the patient under the influence of this medicine. On the 30th, his tongue was white, pulse less frequent. As his bowels had not been opened for two days, some aperient medicine was given. From this date, notwithstanding the good derived from morphia, and supporting the patient with wine, beef tea, &c., the case proceeded from bad to worse. Generally delirium every night; the hand œdematous, the fore arm and arm, nearly up to the armpit, in an erysipelatous state, with matter diffused under the integuments, and, as I apprehended, the synovial membrane of the fractured joint full of pus. Under these circumstances, with a pulse rarely under 130, and sometimes about 150, I took the earliest opportunity, as soon as the redness and swelling of the upper part of the arm had somewhat abated, to remove the limb. The mode of operating which I selected is not that most commonly practised in this metropolis, but which has the advantage of admitting of being done very quickly. The method was that first recommended and practised by Langenbeck, and subsequently by Graefe and Mr. Liston. I first made an external flap, by introducing the point of a narrow smallish amputating knife into the centre of the posterior part of the limb, till it touched the bone. I then inclined the handle towards the patient's side, and made the point pass closely round the humerus to its fore part, when I pushed it through the biceps and centre of the front of the limb, and completed the external flap by cutting downwards and outwards. I took especial care not to make the flap more than two inches and a half in length. Then, introducing the knife at the upper and posterior angle of the wound, I passed it round the bone to the front angle of the first wound, and, by cutting downwards, completed the inner flap. A sweep of the knife round the bone now divided the fibres of the brachialis and triceps closely adherent to the humerus, and the bone was then sawn through. Had I not practised this method of operating, I should have practised that which Dupuytren generally selected, and which consists in making a circular incision at once through the integuments, biceps, and great part of the triceps, without any dissection of the integuments from the fascia, and after having retracted the divided integuments and loose muscles, in cutting through

the muscular fibres closely attached to the bone, and separating them from it a little way upwards. In this way you may save abundance of soft parts to cover the end of the bone, and perform the operation with great expedition, and perhaps with as little suffering to the patient, as the removal of a limb in any way permits. At all events you thus save him from the torture attending the dissection of the skin from the fascia—by far the most severe proceeding in ordinary amputations.

I chose, in the case before us, to try the lateral flap amputation, that it might not be supposed, after what I have written in favour of the circular incision, that I am prejudiced and unwilling to ascertain in the field of experience how far the commendations bestowed by Langenbeck, Graefe, and others on this mode of amputating with lateral flaps, are well founded. Even Velpeau, who disapproves of it, allows that it possesses the recommendations of quickness and facility; but he maintains that the stump is very subject to inflammation from the flaps slipping and moving about, and that if supuration occur, the bone may protrude at one of the angles of the wound. The common fault in this operation is certainly that of making the flaps too long, when some of Velpeau's apprehensions are not unlikely to be fulfilled. This fault I have avoided. The stump, which was closed with a single stitch, and covered with linen dipped in cold water, had an excellent appearance directly after the operation; but some little disturbance of the flaps was produced in about two hours after, in taking up the small arteries, which then began to bleed, and the flaps did not unite. Indeed, no union could have been expected, with inflammation in the limb, reaching nearly to the shoulder, and a pulse between 130 and 140. During the operation the pulse had fallen to 120, and the patient went on favourably till two or three days ago, when in consequence of an attack of erysipelatous inflammation about the stump and breast, the constitution became again severely disturbed, delirium coming on, and the pulse rising to 150. From this state the patient is again recovering, the delirium having left him, and the pulse subsiding. On the 21st of November, an incision was made in the erysipelatous swelling over the pectoral muscle, and the inflamed skin had been bathed with the strong nitrate of silver wash. The patient had also taken occasionally five grains of calomel with the muriate of morphia.

On the 22nd.—The man sleeps a good deal, through the influence of the morphia, but his pulse keeps at 140. In consequence of ulceration having begun over the sacrum, he has been placed on the hydrostatic bed. The erysipelas of the arm and shoulder is subsiding. The incision and the nitrate of silver have had an excellent effect. On the 24th, the fracture of the thigh was united.

On the 30th, the report states the patient is going on favourably; and the stump promises to be an excellent one, without any protrusion of bone, though suppuration occurred.

Condition of the Amputated Limb.—The subcutaneous and intermuscular tissue was gorged with serum, and thickened and indurated; several large abscesses around the joint, and an extensive one on the dorsum of the hand and part of the fore arm. In the joint, a quantity of purulent fluid, with some coagulable lymph, amongst the fractured pieces of the olecranon. The cartilages of the articular surfaces of the three bones were completely absorbed.

—o—

Foreign Medicine.

Cholera in Italy.

M. BONAFONS addressed to the Academy an authentic note on the sanitary state of Italy; and the letters from Dr. Contu, of Turin, relative to the cholera at Piémont, and the employment of sulphate of quinine by the endermic method. The following is his account of Turin:—

	New Cases.	Deaths.
October 22	—	1
— 23	1	—
— 24	3	—

Genoa was perfectly free from disease; and at Livourne and Venice, the cholera was considered as having terminated. The following is from Milan, dated October 28:—“Several letters from Venice assure us of the healthy state of that city. Professor Hildebrande is on the spot; and he declares that no case now exists, either in the city or its environs. Navigation will, therefore, probably be set free.”

Amputation of the Neck of the Uterus.

M. Lisfranc exhibited to the Academy the neck of a womb, which he had just amputated in the presence of M. Magendie. The disease had been of eight years' standing. All the ordinary means had failed, and the constitution of the patient began to give way. The part which had been taken away presented all the characters of cancer; and the section had been made at a considerable distance from the body of the organ. The patient was going on well.

Polypus of the Uterus.

M. Lisfranc presented two polypi, each as VOL. VIII.

large as a fist. The patient had suffered for ten years. The weakness was extreme, the complexion yellow, and the discharge abundant. The disease had been taken for an enormous cancer of the womb. In the middle of the vagina there was a soft fungous tumour, bleeding at the slightest touch; and the finger could only with great difficulty be carried round it. It could be pushed up only in a slight degree. M. Lisfranc introduced the index and middle fingers, depressed the tumour, touched it alternately with both hands, and ascertained the existence of a polypus. He did not venture to affirm there were two.

In the operation the hooks always tore through the tissues which they laid hold of, and it was impossible to implant them in the neck of the womb, which M. Lisfranc has done so often without the least ill effects. The operator introduced, therefore, the index and middle finger of the right hand, but found it difficult to reach the pedicles of the tumours; and the uterus could be drawn down to only a very slight extent. He succeeded, however, in bringing to the exterior of the vagina great part, first of the anterior tumour, and then of the posterior. He then introduced deeply into the vagina, along his fore-finger, a pair of scissors with curved blades; and by a quick section, the patient was freed from these two tumours, which were to a great extent degenerated. Only a few drops of blood were lost. The patient experienced no ill effects.—*Lancette Francaise.*

Cantharides and Cantharidin.

M. Tommaso Palviri, a physician at Alba in Italy, has made some experiments with these substances, on the lower animals and on man, both in the healthy and diseased states.

1. *The Lower Animals.*—Two rabbits were killed, the first in two hours, by two grains of cantharidin in a little ball; the second in half an hour, by a grain and a half dissolved in milk. A third took the same dose, with fifteen drops of cherry-laurel water. Death ensued instantaneously, though the same animal had supported twenty drops of cherry-laurel water, five days before.

Two dogs of the same age and size took, the one ten grains of powdered cantharides, the other twelve in boluses. The first died

quickly, and the stomach was found not inflamed. The other was killed six hours after the dose, and the substance was found undigested, and the stomach of a rosy tint. These substances, then, act only by absorption.

2. *Man in Health.*—The author has twice taken fasting a grain of cantharidin. It produced a general rigor, with a sensation of coldness down the spinal column, pale skin, a feeling of heaviness in the head, and the pulse diminished in frequency by five pulsations. There was a copious secretion of urine at the end of four hours. A fortnight afterwards he took in the morning two grains in four doses. At the second dose he felt a heavy pain in the head; at the third, a little vertigo, with pale skin, and perspiration. He could scarcely maintain himself erect. The pulse fell seven beats. The urine produced a burning sensation, and was more abundant than the fluid swallowed. After dinner he took some alcohol, and then ten drops of liquid ammonia in water. The vertigo disappeared. The superabundant flow of urine ceased in the night; and on the morrow nothing but an unaccustomed weakness remained.

3. *Man in Disease.*—In a pleurisy occurring in a miserable constitution, with sanguinolent expectoration, after two bleedings had been practised, three grains of powdered cantharides were given in solution in the day, and the dose was augmented daily up to ten grains. Continual perspirations were produced, with copious urine, good expectoration, and absence of pain. A cure took place after the disease had continued sixteen days, and eighty-five grains of the medicine had been taken.

In a case of inflammation of the heart, with a suspicion of aneurism, a hundred and twelve grains were given in twenty days, with great relief. The urine was at first scalding; but after the drink was augmented, it became copious and cloudy.

Six other cases are mentioned, but not detailed. 1. Morbid pulsations in the ear, after a disease. 2. Continued fever of a malignant character. 3. Pains in the kidneys. 4. Anasarca. 5. Swelling of the thigh. 6. Inflammation of the womb and peritoneum. The author has also tried this agent in cystitis and gonorrhœa, but with little success; not

having been able to increase the doses.—*Lancette Francaise.*

Aceto-Spirituos Tincture of Cantharides as a Vesicatory.

Mr. D. S. Young, after repeated trials of this tincture, is led to regard it as admirably adapted to supersede the use of emplastrum lyttæ. The manner in which he has prepared it was by digesting four ounces of coarsely powdered Spanish flies in three ounces of rectified spirits, mixed with nine ounces of concentrated acetic acid, in a wide-mouthed glass-stopper bottle for five days, exposed to the sun. The mixture was then strained through flannel, yielding eight ounces of the aceto-spirituos tincture. To Mr. Young's commendations of this tincture are added those of Messrs. Twining and Stewart, of the General Hospital, Calcutta. From the reports of these gentlemen, the medicine acts as a *rubefacient* if quickly brushed once over the skin: and when the skin is freely wetted with the tincture, and rubbed for the space of three minutes, a perfect *vesicatory* is usually formed in about two or three hours. The blister has been in all cases more complete, and contained more serum than that produced in twelve hours by the emplastr. lyttæ. The remedy can be more exactly confined to the part which we desire to affect, and the margin of the vesication is well defined; the whole of the cuticle is more generally removed than by the common blistering plaster, and a more prompt and more free suppuration usually takes place. The pain produced by the application of this tincture is more severe, but much more transient than that caused in any given time by emplastrum lyttæ, but at the time it is rubbed on the skin, no pain is produced. In only one of sixteen cases, did any irritation of the urinary passages occur, and that was in a paralytic patient in whom a blister was produced from the occiput to the sacrum. This irritation of the urinary passages was, however, described rather as ardor urinæ than strangury, and the inconvenience caused by it was neither severe nor of long duration. In this case it would have been hardly possible to confine a long blister so exactly to the part. A perfect vesication was produced in two hours, the margins of which were distinct and well de-

fined, and its effects had not spread beyond the part required to be blistered. Mr. Twining has, in two cases of indolent ulcers, with thickened, raised, and inverted edges, applied this tincture with the best effect. The chronic disease of the edges of these ulcers was subdued by the second application, and the sores quickly put on a healing aspect.—*Abridged from the Transactions of the Calcutta Medical and Physical Society.*

Rupees found in a Man's Stomach.

A man came into the hospital for a complaint supposed to be what is vernacularly called *durd-i-sool*, which is characterized by agonizing pain at the pit of the stomach, recurring in paroxysms, only to be alleviated by strong external pressure. He used to have always beside him a pointed stick, on which he leant, or pretended to lean very forcibly during each attack, but as no unequivocal signs of concomitant constitutional disturbance could be observed, he was regarded as an impostor. Diarrhœa occasionally teased the man, and at such times he seemed free from the spasmodic affection. His constitution appearing to suffer from these attacks, and no relief being afforded by medicinal treatment, he was permitted to remain altogether in the hospital. At length he sunk under this bowel complaint, and on opening the abdomen, the stomach was found to be greatly elongated, contracted in its calibre, thickened in its coats, and altered in its colour. A large indurated moveable mass was felt within it, which was at first conjectured to be a scirrhus tumour or a bone, when the native doctor, who was assisting the surgeon in the examination, exclaimed that he had once heard that the deceased had swallowed fifteen rupees. On laying the stomach open, nine pieces of silver were found placed *en rouleau* at the pylorus, close to which a circular ulceration, with dense indurated edges, had been excavated. When proceeding to open the intestines in order to search for the other six rupees, a convict stated that the deceased had, at successive times, passed that number by stool, but how long ago he had swallowed the fifteen pieces he could not tell. From the date, however, obtained, it is probable they were taken into the stomach at least six years previous to his death.—*Abridged*

from the Transactions of the Calcutta Medical and Physical Society.

Fungus Hæmatodes.

Dr. Smith, professor of surgery in the University of Maryland, has observed in fungus hæmatodes, "one trait," he says, which "so far as he knows, has not been pointed out by authors, and that is an occasional disposition to recede from its first locality, and transfer itself to some other part, sometimes very remote from that first affected, which may then resume its healthy condition." Whence he infers "a very important principle relative to this disease, viz. that the nutritive functions have a control over the morbid excrescence, greater than has been supposed to exist." "And," he adds, "if it be established that this power exists, it is obvious that we may hope to excite and direct it by remedies, so as frequently to effect the complete dispersion of the disease."

As the grounds of these views, he relates the case of a poor woman labouring under bleeding fungus, located in the vagina, upon the recto-vaginal septum, and exhibiting strongly every trait of the disease. Although a doubtful opinion was expressed regarding the ultimate result of an operation, the patient was so anxious that the disease should be removed by the knife, that the operation was performed, during which, it was found necessary to extirpate a considerable portion of the recto-vaginal septum. The patient soon recovered from the immediate effects of the operation; but after the lapse of a few weeks the disease reappeared in the same parts. The case was then considered hopeless, and a palliative treatment only advised. The glands of the groin soon became affected and considerably enlarged.

Some time elapsed before Dr. Smith had an opportunity of seeing the patient, but when he was at length permitted an examination, he was surprised to find that almost every trace of the disease had spontaneously disappeared from its original locality, and also from the glands of the groin. Several small tumours had recently appeared in and around the mammae, exhibiting all the characteristic marks of incipient fungus. They had an elastic pulpy feel, and were affected with but little irritation. After another considerable interval of time, the

patient was again examined, when the tumours situated on the breasts were found to have completely disappeared, and the disease to have begun to manifest itself in the glands of the iliac region within the abdomen. In this last locality the disease continued to progress until it terminated the life of the patient. Immediately before, the disease had recommenced its ravages in the vagina and had extended to the uterus. On a *post mortem* examination, the disease, which was manifestly the medullary fungus, was found to have involved the iliac glands on both sides, and to have extensively affected those of the mesentery.

Dr. Smith has previously related a case of fungus hæmotodes in the Baltimore Medical and Surgical Journal, which he had successfully treated by preparations of iodine and mercury, generally and locally applied, with spare diet and repose.—*Condensed from the North American Archives of Medical and Surgical Science.*

Anæmia cured by Preparations of Iron.

Dr. Geddings says that he has seen the treatment which the first view of the symptoms of this disease would seem to indicate: viz. the repeated bleedings, the diligent use of antimonials, cathartics, and mercurials so frequently adopted, without any other effect than an exasperation of all the symptoms, that he determined on trying an opposite mode of practice. Influenced by this determination he has, notwithstanding the general commotion of the vascular system, the violent throbbing of the vessels about the neck, the hurried and embarrassed respiration, the frequent and *shattered pulse*, and the occasional intense heat of the skin, which frequently attend this disease, had recourse to a combination of corroborants and alteratives, with the most decided advantage. Two cases are detailed to exemplify the particular mode of treatment and its result. The first is the case of a young sailor, in whom anæmia succeeded intermittent fever. After trying the purgative plan, with blisters to the abdomen, and afterwards the use of quinine on blistered surfaces, without any benefit, ten grains of the prussiate of iron was given three times a day for five days, when the improvement of the patient was obvious. The dose of the iron was then in-

creased to sixteen grains thrice a day, and ointment composed of iodine 3ss., hydriodate of potass, ʒj, and strong mercurial ointment, ʒj, was rubbed upon the abdomen daily. After a fortnight's perseverance in the treatment, he was perfectly cured; but still directed to continue the use of iron, taking the muriated tincture instead of the prussiate. The second case is that of a sailor, 18 years of age, who, from his earliest youth, had been annually subject to intermittent fever. In this instance, the carbonate of iron, in doses of ten grains thrice a day, was administered at the commencement, together with the nightly use of alterative pills, and a generous diet, with porter. In ten days there was a marked improvement; the tinctura ferri muriatis was substituted for the carbonate of iron on the 26th day of treatment, and in a fortnight from this time he is reported to have been far advanced in convalescence.—*Condensed from the North American Archives of Medical and Surgical Science.*

Poisoning from Ergot.

Dr. Hulse, of Pensacola, describes the case of a lady who, with a delicate constitution and peculiar idiosyncrasy against all narcotics, was delivered, after six hours' labour, of a healthy boy at six o'clock in the morning; profuse hæmorrhage immediately succeeded, and on trying to withdraw the placenta, it was found to be attached, and an effort to introduce the hand produced fainting. A drachm of the ergot of rye was directed to be infused in eight ounces of boiling water, and one half of the infusion ordered to be given immediately, the remainder in five minutes afterwards. A few contractions of the uterus followed, and the hæmorrhage ceased. The patient was supported in her exhausted state, with a few drops of the tincture of camphor given occasionally. In this condition she continued until eleven o'clock the next morning. During the interval she took a few drops of acetum opii, and slept about an hour. Ergot was now given in doses as above every half hour, until she had taken twelve ounces of the infusion. The uterus, which had been inactive for many hours, gave two or three strong contractions soon after the first dose, and then relapsed into a state of quiescence.

On introducing the hand, the placenta was found detached near the os externum, and was brought away without causing pain. At this juncture "the patient was in a state approaching insensibility; the pulse was full, about 65, and the limbs covered with a cold sweat; wine and water was ordered. Shortly the palpebræ began to swell, as also the lips and fauces, the tears flowed copiously, the schneiderian membrane seemed much stimulated, and there was coryza, great difficulty of breathing through the nose, and injections of the vessels of the conjunctiva. The lips and palpebræ began to puff as if stung by a bee, and gradually assumed a livid appearance. The power of deglutition was now nearly lost; the voice became feeble; she said her jaws were fixed, and shortly after, it was with the greatest difficulty that an answer of yes or no could be elicited. Previous to arriving at this point, she had complained of pain in every nerve, and a sensation of emptiness in the head."

Five grain doses of carbonate of ammonia in water were given every half hour, and friction used over the whole body and limbs, with the strongest liniment of ammonia; after the third dose, the symptoms had so far subsided as to render it unnecessary to continue the remedies. On recovering the power of speech, she said that her head had appeared to be quite empty, and that the sense of hearing had become so heightened, that every word spoken in the lowest tone reverberated through the head, and passed through every nerve in the body. The symptoms all disappeared in a few hours, except the redness and tumefaction of the palpebræ, which remained in a slight degree the following morning. As the pulse rose, and the patient recovered, there was a general perspiration, the matter of which emitted the peculiar factor of ergot.—*Condensed from the North American Archives of Medical and Surgical Science.*

Diabetes Mellitus cured by Tincture of Cantharides.

A boy aged 17, suffering under diabetes mellitus, came in April, 1831, under the care of Dr. Wilmot Hall, of Baltimore. When he first presented himself, his appearance was that of one who had suffered for some

considerable time from the disease. Within nine hours he passed a gallon of pale straw-coloured urine, sweet to the taste; his pulse was 84; his appetite irregular; digestion imperfect; he seemed to labour under no important pulmonary affection, and his alvine dejections evinced the presence of bile. Sulphate of quinine and phosphate of iron were, in the first instance, freely used for some time without any apparent benefit. With the exception of a little bread, he was not allowed anything but strictly animal food. Finding no abatement of the diabetic symptom, he was ordered twenty drops of the tincture of cantharides thrice a day, with directions to increase five or ten drops each dose, unless strangury was induced. On the 19th of May he had passed only a pint of urine during the night. He was now prohibited the use of bread, and confined to animal food exclusively. He, however, occasionally obtained bread by stealth, and on such occasions always found that the quantity of water was considerably augmented, so that at last he was led to refrain from it entirely. At this time he took two hundred and seventy drops of the tincture thrice a day, and was ordered to persevere in the regular increase of the dose. On the 9th of June he was taking the tincture in doses of two hundred drops; the urine passed during the night was four ounces; there was a slight strangury, and the dose of tincture was therefore diminished. On the 12th of June he took three hundred and fifty drops at each dose, when his health was much improved, his strength allowing him to take exercise, without aggravation of the diabetes. He persevered in the use of the medicine until the dose reached four hundred and twenty-five drops, when after suffering from severe strangury, he was ordered to discontinue the tincture, and pronounced to be cured.—*Abridged from the North American Archives of Medical and Surgical Science.*

Iodine in Hydrocele.

Mr. Martin, of the Native Hospital of Calcutta, having experienced many inconveniences from Sir James Earl's mode of treating hydrocele by port wine injections, determined, in 1802, to substitute a solution of the tincture of iodine for the wine and water previously used, and he has now

published the result of his trial in 162 cases which have fallen under his care during the last three years. A detail of the first case in which this experiment was made will exhibit the mode of his procedure, and remove the necessity of repeating others in illustration. "The operation was performed in the ordinary way; but in place of the warm solution of wine, two common urethra syringes-full were injected of a solution of tincture of iodine, in the proportion of two drachms to six of water, of the ordinary temperature. The patient was placed in the recumbent position, on account of rapid faintness, the canula withdrawn, and the *injection retained*; the scrotum being moved about freely for a minute, so as to bring the injection in contact with the whole of the vaginal cavity. The pain appeared rather more severe than from the common injection, but on the fifth day after the operation he demanded his discharge, scarcely any treatment having been requisite while in the hospital. Mr. Martin states, that out of the great number of cases which he has treated in this manner, he has only met with one in which symptoms of a dangerous tendency supervened: a few leeches, with an evaporating lotion to the scrotum, and a gentle purgative, removed these. One case of ten years' standing is described, in which the tumour reached to near the knees, and contained the enormous quantity of *ninety-two ounces* of greenish offensive serum. By the iodine injection the patient was "quite well in eight days." The advantages of this practice are thus described:—1st. The operation with the solution of tincture of iodine would seem free from the danger of infiltration. 2nd. It is more certain in its effects than any former injection. 3rd. The cure is effected in a shorter time. 4th. It is much easier of performance. 5th. No serum has on any occasion been "reproduced a few days after the operation," demanding a second tapping. 6th. The care in after treatment, on which "so much depends," with the wine solution, would not seem here to be requisite.—*Abridged from the Trans. of the Calcutta Med. and Phys. Society.*

Acute Hydrarthrosis. By Baron Larrey.

A man fifty years of age sprained his knee severely. A dropsy of that joint was the

consequence. It formed a very large tumour, and was evidently the result of acute inflammation of the synovial membrane, brought on by the violence of the injury.

M. Larrey applied four moxas to the tumour, and enveloped the limb in an immovable apparatus. This apparatus consists of several pretty long compresses, wetted with a mixture of white of eggs, vinegar, and camphorated spirit. By their application a kind of permanent compression was maintained over the whole tumour, and the moxas did not suppurate at all. This was just what was wished. In a fortnight's time the compression was made stronger by the renewal of the same apparatus, and the tumour had already begun to diminish. In another fortnight the absorption of the synovia was complete, and the patient appeared perfectly cured.

There are two important points of practice to be attended to in the management of this affection: the equal and firm compression of the tumour, by means of an immovable apparatus, and the absolute repose of the joint. These two are the most powerful and proper methods of effecting a cure. It may be said, it is very difficult to admit the utility of moxas in acute arthritis, with hypersecretion of synovia; but supposing that the latter remedy has not contributed to the cure, neither can it be said to have done much mischief. In cases, indeed, of indolent hydrarthrosis, the application of moxas before compression, appears to us of very great advantage. The practice in question is not that which is generally followed in similar cases. The usual plan is to treat the inflammation of the synovial membrane, first by antiphlogistics general and local, especially the repeated application of leeches, emollient cataplasms, rest, &c. Then, when the acute inflammatory state is subdued, recourse is had to blisters; and sometimes moxas are likewise added, when the absorption is slow in taking place. Allowing, however, that the principle which directs practitioners in this mode of procedure is in itself just, we must nevertheless observe that its execution is defective. We have had occasion to remark, a great number of times, both in the hospitals and in private practice, that the application of leeches around articulations inflamed from injury, such as a sprain for example, is rather

hurtful than advantageous. The bites of these animals almost always produce an increase of inflammation, an augmented flow of blood, great swelling, and sometimes erysipelas, which greatly aggravates the malady, and retards its cure. It is also, as we think, doubtful whether the emollient applications, of which such general use is made in these cases, are really beneficial.

A principal point in the circumstances in question, is to prevent the effusion of fluid in the injured articulation, and to stifle, by that means, the violent inflammation which would not fail to supervene. In order to fulfil this important indication, we know no better method than compression, assisted by the continual moistening of the bandages with cold water. If traumatic inflammation should already have taken place, we should like best to employ cupping for the local abstraction of blood. We may afterwards have recourse to compression, assisted by the cold water. It is well known in the present day, that among other advantages, methodical compression exercises an incontestable antiphlogistic influence, by the active opposition which it offers to the secretion of fluid in the part, and by that kind of torpor which it induces in the tissues submitted to its influence.—*Lancette Francaise*.

Aconitum Napellus in Rheumatism.

By Dr. Chaudru.

The case which we are about to relate, in conjunction with those already published, is calculated to induce perseverance in experimenting on the employment of *aconitum napellus* in rheumatic affections.

M. B., 54 years of age, stout in person, and of a strong constitution, was attacked for the first time, at the age of nineteen years, with an intense articular rheumatism. Since that period he has experienced very frequent paroxysms, and sometimes of a very serious character. Extensive use was made of a series of different agents;—general and local bleeding, revulsives, sudorifics, opiates, emetics, purgatives, &c. As a last resource, the patient had, for a long time, been in the habit of constantly using *Sibie's* purgative pills, of which he took more than a hundred boxes, that is, fifteen hundred pills. They sometimes produced considerable hyperca-

tharsis, and substituted a diarrhoea for an habitual and sometimes obstinate constipation. Under this influence, M. B. was less frequently subject to rheumatic relapses. Indeed he was often the subject of tenesmus, and felt himself in imminent danger of an enteritis and its consequences. When once the attack of rheumatism seized him, although not intense in its character, it was very long in continuance—lasting eighteen days at least, sometimes a month, and even two occasionally, whatever were the remedial means adopted. This, as is well known, is the usual period of a rheumatic affection.

On the 19th of September, 1835, being at Talence in rainy weather, M. B. felt an attack, and hastened to employ his usual remedy, *Sibie's* pills. The malady however increased. It was confined at first to the right hand, the wrist being red and swollen, with impossibility of motion; but the next day it extended, almost simultaneously, to all the articulations both superior and inferior, except those of the hip. It had not spared even the vertebral articulations, so that the trunk was constantly kept in a state of forced extension, as in *opisthotonos*. All these parts were the seat of violent pain, augmented by the slightest movement. The pulse was full, strong, and frequent; the skin hot; the tongue white and moist; thirst ardent; no pain in the head.

The treatment adopted consisted in emollient narcotic fomentations, with the continued applications of flannels steeped in the same liquid; infusion of *linden*, with the addition of some drops of acetate of ammonia in each cup; pills of the alcoholic extract of *aconitum napellus*, and abstinence. These means were exclusively and perseveringly employed from the 20th to the 28th of September. The *aconite*, administered at first in the dose of two grains, was gradually increased to twelve, and was then taken in doses successively decreasing. From the 22nd there was a notable improvement. The pains were less severe, the joints less swollen, red, and hot. Some motions could be performed, though with difficulty, such as raising the hand to the head. The pulse was more natural, and some sleep was obtained. This plain and progressive improvement allowed the patient to take a bath on the 27th. On

the 28th he rose, and walked about; the inflammation had disappeared, except in the joints of the left great toe.

Notwithstanding the greatest attention during the course of the disease, we could not observe any crisis, either by the skin or the kidneys. The light diaphoresis, which was constantly present, is abundantly explained by the frequently repeated tepid drinks, the weight of the bed-clothes, and the smallness of the patient's chamber. The urine, scanty rather than abundant, was red and loaded with sediment during the first period of the disease, but afterwards regained its limpidity. The alvine secretions were solicited by emollient injections.

There was one phenomenon which struck me, from the administration of the first pills of the extract of aconite, and which, if it had become serious, would have determined me to discontinue the medicine. I refer to a particular state of somnolency, numbness, and torpor, which the patient experienced for more than twenty minutes, every time that he dosed. It was like that which happens to every one in a state of health, after a long sleep, when he requires to be shaken in order to be roused. As the first pills contained a preparation of opium, though in very small proportion, I remained in doubt respecting the cause of the phenomenon just described. I struck out that substance from the formula, leaving only the aconite and an inert powder; but the same phenomenon was observed, and continued during the administration of the medicine.

The patient, as well as myself, was agreeably surprised at so quick a recovery, after so frightful an attack, especially when it is remembered that such attacks occurred so frequently, that our patient might be said to have a rheumatismal diathesis. We do not think it necessary to inquire whether the cure could be attributed to anything else than the aconite. The acetate of ammonia was employed only in doses of five or six drops in each cup of infusion; and beside, no crisis took place by the skin. The preparation of opium was employed only in the first sixteen pills, to the amount of forty-eight grains. The aconite alone, therefore, was given in active doses.

If it were necessary to confirm the authen-

ticity of the case we have just reported, we might state that M. Guitrac, whose testimony is of great value in matters of science, knew the patient, and saw him once with us. We conclude in his words:—"If the alcoholic extract of *aconitum napellus* be not a specific in rheumatismal affections, it may at least be regarded as a very valuable medicine in their treatment. Every practitioner, therefore, should have it at hand."—*Lancette Francaise*.

—0—

REMARKS ON ERYSIPELAS.

To the Editor of the *London Medical and Surgical Journal*.

SIR—In reading the clinical remarks of Mr. Liston upon the second case of erysipelas recorded in your journal of the 21st inst., I perceive he makes no allusion to the application of cold, either in the treatment of the patient under consideration, or in recommendation of its use and eligibility in similar circumstances. For the principle of the practice which I am about to advocate, I am indebted to the influence of a remark made to me by Sir Benjamin (then Mr. Brodie) many years since, upon the supervention of erysipelas, consequent upon an operation of removing a large tumour from the breast of a lady, who consulted me upon the nature of a tumour I considered scirrhus, and recommended its removal. I recommended the case to Sir Benjamin Brodie, who advised excision; the operation was most skilfully performed by him; the edges of the wound intimately approximated, and every thing proceeded most favourably until the fourth day, when erysipelatous inflammation supervened.

A novice in practice, impressed with the instruction I had imbibed from the prevailing theory of the day, as to the treatment of erysipelas, no sooner did the disease manifest itself, than I lent it a helping hand, by giving cinchona bark (quinine not then being in vogue), ammonia, &c.; the mischief progressed, the operator was called upon; feeling confident in the notions I had received, I made known my treatment. His remark was, "I see no reason, sir, why a different treatment should be here adopted than under ordinary circumstances of inflammatory action—purge freely, give diaphoretic salines, and foment and poultice the wound, first dividing the recently formed adhesions, to remove tension. This advice came too late; too severe a degree of inflammation was established to be arrested, the mischief extended, the symptomatic fever raged, the brain suffered, and death ensued. In this case, from subsequent experience and observation, I think the lancet was prejudicially spared, as also the cold

evaporative lotion—as in my future practice amid a multitude of most severe cases both of idiopathic and symptomatic erysipelas, I have never failed in one—my treatment having been decidedly generally and locally antiphlogistic, where temperament and constitution would admit, but invariably topical bleeding* and cold lotions, consisting of Spr. Vini Rect., Liq. Ammon. Acet., Aquæ Rosæ, partes æquales—under every circumstances; modifying the general antiphlogistic treatment, according to existing circumstances; as to the idea of repelling inflammatory disease from an external surface, and giving it a greater tendency to attack any internal subjacent part, is a proposition I consider untenable upon every rational principle, it being an acknowledged fact that caloric evolves, to unite with a body of a lower temperature; it may as well be argued that a heated bar of iron, would have its temperature condensed and concentrated by plunging it into a hillock of snow—the rationale is, the colder body borrows, or extracts from its heated neighbour the difference of degree of caloric, until a mean temperature is produced—inflammation is heat—the antagonist of heat, is cold; the habitation of life is on fire, whether its walls or interior, it matters not, the destructive element must be checked—seek out, and remove the cause, and simultaneously attack its localities. I am Sir, your very obedient servant,

JOHN LANGLEY.

36, Tottenham Street, Fitzroy Square,
November 24th, 1835.

—o—

**The London Medical
AND
Surgical Journal.**

Saturday, December 19th, 1835.

— — —
**THE PROFESSORSHIP OF SURGERY IN
THE UNIVERSITY OF EDINBURGH.**

THE vacant chair of Surgery in the University of Edinburgh is, we understand, to be offered to Sir Charles Bell. In this event, the Town Council will evince a judgment in the choice of a professor, which it were to be wished they had more frequently exercised—the consecrated seats of the Cullens,

* An objection has obtained, that leech bites have a tendency to increase the irritation of the part sought to be relieved—the punctures of half a dozen may do so, but twenty or thirty so far relieve the local congestion and tension, that their greater advantage overcomes the lesser evil; the same opinion might apply with equal force to scarifications.

the Monros, the Blacks, and the Gregories, having been of late years too often occupied by individuals previously unheard of; so that if they have been respectably filled, which we admit has generally been the case, the thanks are due to fortune and not to the Town-Council of the good city of Edinburgh.

If Sir Charles Bell accepts the proffered honour, he will, no doubt, raise the Edinburgh School of Surgery to a high degree of eminence. We may add that he will find a field well worthy of his transcendent abilities. The *pures* in our part of the world have taken it into their heads that Edinburgh surgery is a hundred years behind London surgery; but we can assure them from an extensive and impartial comparison, derived from our personal experience, that they labour under a grievous mistake, and that their Northern brethren, so far from being behind, are very considerably in advance of them. The Edinburgh surgeons are for the most part better anatomists, better pathologists, quite as good operators, and incomparably more learned men than those of the English metropolis. That they are better anatomists is an opinion in which perhaps not many will agree with us, yet we are perfectly convinced of its accuracy. There is a material difference in the method of studying anatomy in the two schools; in London the student attains a very exact knowledge of mere structural anatomy; but this knowledge is generally too little blended with physiology and pathology, and, thus deprived of the relations which give it real value and applicability, it very speedily evaporates; there is nothing to render its hold on the memory permanent, the most trivial and the most important facts presenting themselves with equal claims to attention; accordingly it too frequently happens that the student, after he has been ten years in practice, is extremely innocent of all anatomy whatsoever: in Edinburgh, on the other

hand, anatomy is taught chiefly with reference to physiology and the practice of surgery; so that the student is enabled to discriminate what is worth remembering, while his reason and observation come to the aid of his memory in the retention of those facts which have any important bearing.

Anatomy presents itself to the London and Edinburgh student under aspects entirely different; a great number of Edinburgh students, though diligent, would be rejected on anatomy by the London College of Surgeons, and a still greater number of London students, though equally diligent, would be rejected by the College in Edinburgh.

That the Edinburgh surgeons should be better pathologists than those of London, is very easily accounted for by the joint cultivation of physic and surgery in the Northern metropolis, where most of the physicians would be ashamed of themselves, and very justly so, if they were not found "good at need" in the capacity of surgeons, and where almost all the surgeons, even those connected with hospitals, are general practitioners, and in the constant exercise of every branch of their profession.

That the Edinburgh surgeons should be better educated men than those of London, is just as easily accounted for by the fact that a great many of them are actually doctors of medicine, and that almost all have enjoyed, to a greater or less extent, the advantages of an academical education.

But to return from this digression on the comparative merits of London and Edinburgh surgery.

If Sir Charles Bell accepts the chair of surgery, *Edinburgh* will make a great acquisition; but will such an event speak well for the encouragement given to professional talent in *London*?

Will it be creditable, we ask, to the state of the profession, or to the discernment of the public in this metropolis, that one of the most distinguished

surgeons, and, beyond all rivalry, the greatest physiologist of the age, should, after twenty years' residence in London, have found so little inducement to remain there as to accept an academical situation in Edinburgh? We answer *no*, it would not be creditable. The truth is, that every man of high talent and unblemished character, must feel chagrined at being thrown into the background by a set of shallow coxcombs and unblushing knaves—at finding experimentally that "the race is not to the swift, nor the battle to the strong"—that distinguished talents are of little avail, and that an honourable character, so far from being an advantage, is a direct drawback, by preventing him who bears it from descending to the mean artifices, the vile sycophancy, and the disgraceful humbug by which the "heads of the profession" too often attain to a "bad eminence."

Again, does it speak well for the public spirit of the largest and wealthiest metropolis in Europe, that it has no academical honours to confer, and that it has no better distinction to offer to the most meritorious members of a learned profession, than the presidency of one of two corporations—it were profane to call them colleges—a connexion with which, in any capacity, is derogatory to the character of a gentleman?

We say a connexion in *any* capacity; since to be of the number of the rulers is to fraternize with bullies and rogues; to be of the number of the ruled is to bend the neck to a slavish subserviency; and to be the ostensible head of so despicable a body, is, in reality, to be "the great toe of an *unpopular* assembly"—it is to stand forth as the type of its aggregate vices; of the insolence of the bullies, the dishonesty of the rogues, and the meanness and pusillanimity of those who quietly allow themselves to be browbeaten and cheated.

Such are now the honours to which each *legitimate* son of Æsculapius

(pure to wit, all the rest are bastards), may, by a remote possibility attain; but we hope most sincerely that many years will not elapse ere a London University, rich in its endowments, and patriotic in its spirit, will hold out stronger inducements to exertion, and nobler rewards to merit.

—o—

LONDON MEDICAL SOCIETY.

Monday, December 14, 1835.

DR. WHITING, PRESIDENT.

THE Society was occupied this evening with the discussion of a case that had now terminated, and which in its progress, had been related to the Society last Session. A variety of opinions were expressed, as to the proper name of the disease; but as we cannot give the case in full, we have thought it the most proper proceeding to merely notice the discussion in this manner.

—o—

WESTERN MEDICAL ASSOCIATION.

Thursday, December 10, 1835.

DR. RYAN, PRESIDENT, IN THE CHAIR.

The Poor Law Amendment Bill.

MR. VERRAL's paper on the Poor Law Amendment Bill having given rise to an animated discussion at a previous meeting of the Association, it was then agreed that a petition should be presented to Parliament on the subject. The petition was laid before the Association this evening, as drawn by a committee appointed for that purpose, and after some observations from Drs. Ryan and Epps, Mr. Verral and other gentlemen, the following petition was agreed to.

The humble petition of the Western Medical Association, to the Honourable House of Commons in Parliament assembled,

Sheweth—That your petitioners are members of a Society, entitled "The Western Medical Association," established for the purpose of improving themselves in the science of medicine, and of exalting the character of the medical profession.

That your petitioners have beheld with considerable alarm the proceedings under the *New Poor Law Act*, in reference both to the mode of employment and the remuneration of the medical officers connected with the various parishes in England.

That your petitioners are satisfied that every candid mind must acknowledge that the remuneration of medical men under the old system was of a most inadequate character; a character changed most considerably for the worse under the *regulations* of the Poor Law Commissioners.

That your petitioners are further convinced that, in regard to the method adopted

in obtaining medical assistance, the power placed in the hands of guardians in distributing parishes and districts, is at once unjust to the profession, and injurious to the poor.

That in regard to the profession, your petitioners are convinced they are unjust, inasmuch as they arbitrarily dispose of that practice which a practitioner may have obtained by his industry, skill, and attention; inasmuch as they introduce a comparative stranger, upon no other reason than a difference in *pecuniary bidding* for services to be rendered, into the midst of a practice and the connexion of the original and established practitioner.

That your petitioners are satisfied that, in regard to the *poor*, the regulations are injurious, as placing them at the mercy of a stranger, who may obtain the power over their sick persons by bidding a few pounds lower than that of a man, who, from a long experience, knows the relationship between the kind-hearted medical practitioner and his afflicted brethren of the human race; and who knows, also, that there are many attentions which no pecuniary aid can ever compensate. And that further, the universal enforcement of the system of *tender* must induce a perpetual ill-will among medical men, a destruction of the professional character, and finally, establish an amount of remuneration totally inadequate to the services required.

That your petitioners feel convinced that individuals who will thus consent to undervalue professional services must have motives of no superior character; that their chief hope must be, that, by a limited supply of inferior medicines and of inferior attention, they may be enabled to render the contract not so great a loss; encouraged at the same time by the hope, that, patronized by the guardians, they may be enabled to worm their way into the bosom of respectable families, and thereby to supplant men more talented, or at least better acquainted with the wants of a district than a stranger can possibly be.

That your petitioners therefore pray your honourable House to take this matter into your serious consideration; a desire they the more willingly express, being convinced that it is the wish of your honourable House, both that every possible emendation should be made in the *New Poor Law Act*, and also that the education of the members of the medical profession should be as perfect as possible; an education involving a very considerable expense, which ought to be regarded in estimating the value of the services tendered, so as to ensure an adequate remuneration.

And your petitioners further add, that they will be happy to prove the truth of the allegations in this, their petition, before a Committee of your honourable House.

And your petitioners, &c.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Dec. 12, 1835.

RICHARD QUAIN, ESQ. in the Chair.

*Eczema—Hæmoptysis—Death of Mr. Mart.
—Favourable Report respecting Mineral
Magnetism.*

DR. ADDISON, in consequence of the case of eczema related last week, placed before the Society, some very beautiful models representing the ordinary species of that disease. He was glad to see the attention of the Society directed to cutaneous diseases, as there was no class of maladies so little understood, or on which a wrong diagnosis respecting could more affect the reputation of the medical practitioner. With respect to Mr. Thomson's case, he still thought Bateman had described two instances in which precisely similar symptoms occurred, except that the form of the exfoliation was not so exquisite, and there was vesication; and he (Dr. A.) had no doubt that the disease might appear merely inflammatory with imperceptible vesication. Mr. T.'s case was evidently eczema rubrum. The cause of the exfoliation being so exquisite, he considered to arise from the imperfect manifestation of the vesicular eruption, which allowed the deposition of fluid between the cuticle and cutis vera, so that the former was consequently raised. Now, Dr. Copland had mentioned the presence of gastro-enterite in eczema; but was the gastro-enterite dependent on eczema, or was it merely a sequela to it? It was difficult to suppose the first, because eczema often arose from local irritation; but as we often meet with gastro-enterite in that disease, it is probably a sequela to it; besides, liquor arsenicales and other irritants were given with good effect in eczema; which if it were dependent on gastro-enterite would not be the case.

Dr. Johnson believed the novelty of Mr. Thomson's case consisted in the periodicity, not the recurrence of the attacks. He wished to inquire, did the cases referred to by Dr. Addison exhibit that peculiarity?

Dr. Addison remarked that the statements of patients could not always be relied on; he could not say the attack took place exactly at the seventh week; but he believed that was about the usual time. Dr. Bateman in one of his cases mentions that the attack recurred regularly once a month for a considerable time.

Mr. H. Thomson brought the case forward as showing a variety of the disease. Had a young member of the profession expected to find that variety described in authors, he believed he would have failed to recognize it.

Mr. Salmon understood there was some vesication in Mr. Thomson's case, about the shoulders.

Mr. Thomson remarked there was slight vesication in the second attack, but it was so exceedingly minute, as to be detected with the greatest difficulty.

Dr. Addison said it often required a mi-

croscope to detect the vesication in this disease. With respect to the prescription which had led to some conversation at the last meeting, he was sure that a decomposition must have taken place; but whether the arseniate of quinine which was formed, was less valuable as a medicine than the simple quinine was another question. He thought the clearer we steered from unchemical preparations the better.

Mr. Salmon, when connected with the General Dispensary, had always been able to detect the slight unevenness of the surface, by passing his fingers over it, covered with flour or pure magnesia.

Dr. Johnson was not an advocate for unchemical compounds, but as we find many medicines which are called unchemical, very serviceable in practice; for example, the tartrate of antimony and the sulphate of magnesia were a good illustration. While on his legs he begged to ask the Society, in how short a time hæmoptysis proves fatal? the Society had just lost another valuable member, Mr. Mart, besides Sir D. Barry, from that disease. That gentleman had been subject for the last two months to a dry cough, and had resided in the country, coming to town occasionally on business. Dr. J. did not see him during that time. He was called to see him yesterday morning, in consequence of an attack of hæmoptysis, but he could not attend sooner than 5 o'clock P. M. Mr. Lambert was called in and bled him; the blood coughed up at that period did not exceed a tea-cupful. Dr. J. visited him at five in the evening. The blood that had been abstracted was cupped; the hæmoptysis since the morning had not been violent, the sputa only being slightly tinged with blood. The pulse was a little accelerated; the blood thrown up became a little more florid; and the cough more frequent. Dr. J. feared another attack, and did not apply the stethoscope. The bowels had been moved, and 1 grain of the superacetate of lead, and $\frac{1}{2}$ grain of opium were ordered to be given. Almost directly afterward hæmorrhage followed, and he died at 9 o'clock. The body had not been examined; but he should endeavour to get permission so to do.

Dr. Addison said, without an autopsic examination no certain opinion could be given. Aneurism might have existed. He remembered a case at Guy's hospital, in which the patient suddenly threw up a large quantity of blood whilst on the close stool, and died. He was supposed to have had hæmoptysis. On examination, however, it was found death resulted from the bursting of an aneurismal tumour.

Dr. Johnson was induced to believe Mr. Mart's case was not one of aneurism, from the fact of the first attack not proving fatal.

Mr. Thomson related a case, in which a patient had sudden hæmoptysis in the morning, but lived till 7 P. M., when he suddenly vomited a large quantity of blood, and died. On examination, it was found an immense

vomica had partially burst in the morning; and that in the evening more blood having accumulated was thrown up, and proved fatal. The lungs were much diseased. He thought it was probable that Dr. Johnson would find a large vomica in Mr. Mart's case.

Several other cases were related; but as no post-mortem examinations were allowed, they were not considered satisfactory.

Mr. Horne saw Mr. Mart about a month ago, when he stated to the patient's friends that the disease would shortly end fatally. He was then informed that Dr. Clarke had given the same opinion.

Mr. Lambert replied, Dr. Clarke had never given that opinion; but Mr. Davidson immediately rose and confirmed the statement of Mr. Horne. In answer to a question by Mr. Horne, Mr. Lambert replied that he had never thought Mr. Mart's lungs were much affected, for he had only a slight cough.

A conversation now ensued, with respect to the names of Messrs. Watkins and Hill having been mentioned to forward the views of Dr. Schmidt, in which it was stated by a member that that firm had authorized him to contradict the statement that had been made, they never having had anything to do with the matter.

Dr. Schmidt was allowed to explain, that the offer of competition was made to Messrs. Watkins and Hill, through a Mr. Wilkinson of Pall-Mall; and that the reward of 100*l.* was offered by a gentleman near Manchester, if they could produce magnets of equal power with Dr. S.'s. They tried and failed; attributing their failure to the inferiority of the English steel to that of the German.

Mr. Hale Thomson now was called on for the report of those cases in which Dr. Schmidt had tried the effect of his magnets. He could not as yet assert that any benefit had resulted from such application; but he believed he could positively assert, in opposition to the opinion expressed by Dr. Ritchie, that a decided physiological effect could be produced by the application of the magnet as recommended by Dr. Schmidt. Dr. S. had selected four cases of amaurosis as fair ones for the trial; lachrymation was distinctly produced in every case by the application of the instrument, with great mobility of the iris. In addition to this fact he would mention the case of a boy who was received that afternoon into the Westminster Hospital, with permanent dilatation of the pupils from concussion of the brain. The magnet was applied for three minutes, and the iris contracted. The experiment was repeated, and a further contraction took place, which was permanent. These experiments were conducted in the presence of Mr. Soden, the House Surgeon, who agreed with Mr. Thomson as to the result.

Dr. Webster had witnessed the application in the cases of amaurosis mentioned by Mr. Thomson. In one of these cases, that of a woman, she expressed herself as having been benefitted. The other three had as yet re-

ceived no relief; but, on the contrary, complained of their vision being rather more clouded.

Mr. Holt mentioned the case of his daughter, who had been deaf for some time. Dr. Schmidt's magnets were applied five times, and the results were decidedly beneficial, the hearing having improved.

Further reports were requested by the Society, which then adjourned.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Case of Dyspepsia, Scrofula, and Phthisis, with Clinical Remarks by Dr. Elliotson.

E. G., aged 29, was admitted on the 8th of September; the report states that "he was first affected with scrofula 17 years ago; it had made dreadful ravages in his arms and legs; the left elbow-joint is stiffened, and pieces of bone have been constantly coming away; one piece, he says, was three inches long. In consequence of his great suffering he has taken opium for the last three years, to relieve the pain. He believes none of his relations have been affected with scrofula. A few months since, he had an attack of diarrhoea, which was followed by ascites; there is now evident fluctuation." Now, this was a case in which generous diet was indicated, animal food, as much as was convenient to the stomach, and malt drinks. Conjoined with these, we gave the carbonate of iron; iodine also was likely to do good; we therefore gave him one of its mildest preparations, the hydriodate of potash. Had he pursued this plan of treatment for six or eight months, according to my wishes, there is no doubt he would have been very much relieved, for he was evidently improving when he left, having a desire to go home.

The next two cases were still more unsatisfactory, for the patients died: they were cases of phthisis. Both the patients came in with excavations in their lungs; in one case, that of a young man, aged 29, the excavation was slight, and there was sub-mucous r le. In that of the woman, aged 36, large excavations were detected by the stethoscope. Now, some people affirm that they can cure consumption: I cannot; I have tried every thing that has been recommended, but without success. When the disease is threatened, I believe we can do good, by strengthening the system. Wearing flannels, the use of the shower bath, living regularly and uniformly as regards diet, and proper exercise in the fresh air, I believe have saved many patients who have been threatened with phthisis; but when the tuberculous matter is formed, we can only relieve suffering. In all cases where there is new formations, there is no

remedy in medicine, whether those new formations be of a strumous melanotic or scirrhus character. We may prevent the condition that gives rise to them; but when they are once formed, we cannot remove them. In spite of all care, when phthisis has once come, it will go on. We can relieve some of the sufferings, such as the cough, the night sweatings, and the ulcers, by inhalation; but we have no power over the tuberculous deposit. In the case of the woman, I endeavoured to afford her some relief, by ordering her to inhale creosote; she was, however, so weak she had scarcely strength to use it. I contented myself with allowing her anything she might fancy, with small doses of opium to relieve her cough and procure sleep.

Inhaling is sometimes attended with benefit; laudanum, or the tincture of hyoscyamus mixed in warm water, and the steam drawn into the lungs, have been sometimes attended with good effects: iodine in solution has been also recommended; but it is a very acrid substance, and the use of it is frequently followed by hæmorrhage: I doubt if it is a good application either for the ulceration or the system of the patient. I have seen benefit result from the use of chlorine, but more from that of creosote; of course there must be no inflammation when that medicine is used. I have certainly seen, in cases in which I have employed it, an improvement in the expectoration; the cough has become easier, and patients have lived longer than I expected they would have done; of course I cannot say that those who have inhaled creosote have lived longer than they otherwise would have done, for these sort of cases are so uncertain; but the young man, whose case we have mentioned, inhaled the creosote, and he certainly lived longer than I expected he would have done from the state in which he was when admitted. The way in which I order creosote to be inhaled is by putting a few drops of it in cold water, and when it is going to be used to agitate it, and inhale through the liquid; a drop was generally added every time he used it.

Now we will shew the lungs of this patient: there was pectoriloquy and cavernous respiration under both clavicles; you see the right lung is one mass of tuberculous deposit; the ulceration is greatest at the upper part; it began there first, and of course is more advanced; you perceive the upper part is a complete sac, the middle part is less ulcerated, and the lower one still less. Here is the left lung; the upper part contains a larger cavity; you will remember there was pectoriloquy on this side too. It is usual for the left lung to be more diseased than the right, but the contrary occurs in this case. There is no tuberculous matter at the lower part of the left lung. The heart is small in this case, as it generally is in phthisical patients; by accident it may

be larger, but it is generally smaller than natural.

Anasarca Phlogistica.—Phlebitis—Application of the Nitrate of Silver.

Mary Anne Cates, aged 18, was admitted November the 10th, under the care of Dr. Elliottson. She is a housemaid, and has had amenorrhœa for nine months, during which time she has suffered from headach and debility. Six months ago she was bled, and took medicines for the suppressed menstruation, but was not relieved. A fortnight ago, her feet and ankles began to swell, next day the swelling extended up to the knees; the face and arms became œdematous, and the abdomen began to enlarge. At the present time her feet and ankles are swelled, and pit on pressure; there is slight erythema there, her face is pale and œdematous, arms and hands swollen, the abdomen is enlarged, and painful on pressure, the skin natural. She complains of pain in the loins, shooting pains in the head, worse at night, urine almost suppressed the last fortnight; what little there was, was high coloured. She has taken some drops the last three days, which last night occasioned a copious flow of urine. Bowels regular; auscultation detects a bellows sound synchronous with the pulse; she has shortness of breath after running up stairs, or making exertion of any sort. She was bled to ℥ xvj. , and half an ounce of cream of tartar, with ten grains of the powder jalap, were ordered every morning.

11th. Pulse 108, weaker; urine scanty, neutral, albuminous; blood not buffed, or cupped; the headach has left her; her legs are not so hot at night; the eruption is not so vivid; has still pain in the abdomen.

12th. Œdema of face much subsided; pain in the abdomen gone; pulse 88; œdema of the right hand and arm has subsided, from the serum running away at the puncture made at the venesection; that of the left hand and arm also nearly gone; complains of some headach.

14th. Her foot and arm are very painful.

15th. Had a shivering fit, which lasted from 1 to 3 P. M., succeeded by heat; complains of pains all over her, but chiefly in the loins; has great thirst; pulse 100, full; tongue dry, reddish at the tip; lips dry; teeth loose; bowels still relaxed.

16th. Erysipelas has taken place in the forearm; the solution of nitrate of silver was applied to the inflamed surface.

18th. She is very irritable; the tongue and lips dry; the arm quite raw.

19th. Tongue dry; skin hot, and dry; pulse rapid; there is evident phlebitis; the nitrate of silver solution was applied in the course of the vein, and the ung. hydrarg. fort. ℥ j rubbed into the thighs every hour; symptoms of gastritis have also come on, for which twenty leeches and a blister were afterwards applied.

20th. The phlebitis is spreading; the caustic solution repeated; inflammation has spread along the vein to the axilla; constitutional symptoms, much as yesterday; pulse hard, 108; gastritis much relieved; the solution of the nitrate of silver applied to the arm as high up as the axilla; she is evidently sinking fast, her pulse is vernicular, tongue dry, skin still hot; is in no pain, but has great difficulty of breathing; no power to expectorate. Died this afternoon.

Autopsy.—The cephalic vein was distended with pus and coagulated fibrine, the coats of the vein were indurated from the bend of the elbow, to its junction with the axillary vein; the surrounding subcutaneous cellular tissue was healthy, except being œdematous. The synovial membrane of the shoulder joint contained pus and synovia. The heart was healthy, but contained some clots; the stomach contained a greyish gelatinous mucus; there was redness at the cardiac orifice, continuous with a similar state of the mucous membrane of the œsophagus, which presented several detached patches of redness, and also contained a greyish gelatinous mucus, similar to that found in the stomach; this mucus was of the consistence of mucilage; the spleen was enlarged and congested; the intestines, liver, and lungs, healthy throughout; the kidneys were large, and had assumed appearances of the commencement of granulation. There was erysipelas in the ward.

Dr. Elliotson remarked of this case, that it is evident that in inflammation of a vein, that other veins, situated in different parts of the body, suffer under the same affection; the inflammation is not continuous, but the parts seem to suffer from sympathy; he had seen cases in which distant veins from the original seat of the disease, had become affected, in which there was no line of continuity. If then, you are successful in subduing inflammation in one vein, there may be such irritations in other veins, that the patient sinks. With regard to the application of the caustic, he considered it in sub-phlebitis, an excellent application; a friend of his had applied it with the best effect in a case which did not, however, arise from the absorption of a morbid poison. It did not in the above case succeed; but there was no room for antiphlogistic treatment, and it is probable no other remedy would have been successful.

Efficacy of Hydriodate of Potass in Caries Ossium.

William M— was admitted November the 10th, under the care of Dr. Elliotson. He is a carman, of moderate habits, never addicted to drinking; has generally enjoyed good health. He was kicked by a horse nine years ago, from which accident he felt little inconvenience, except two black eyes, until four years afterwards, when he felt a gnawing pain in the bones of his head, which continued for several hours together, and has

lasted until the present time. Five pieces of bone have been discharged from his nose, which circumstance has caused some degree of disfigurement in that organ. He now complains of violent pains in his head, commencing in the forehead, and sometimes extending to the occiput: in other respects his health is good; tongue clean; pulse 92, moderately full; appetite good; no thirst; bowels open.

Four grains of the hydriodate of potass in solution, were ordered three times a day.

17th. Much easier, better altogether.

18th. Has now no pain; from this time he continued quite easy, and was discharged on the 1st of December, quite relieved.

Dr. Elliotson remarked that this was a case proving the efficacy of hydriodate of potass in caries of the bones of the head.—It was a good example also of the evil resulting from injuries, which at the time they were received seemed of no consequence, but after a long time, break out in a serious disease. He had often seen affections of a like nature in old people, resulting from injuries they had received when young. With respect to the remedy, it was also of great benefit in perioritis, instances of which had been seen in the hospital. Sarsaparilla would never have done so much good. It would have been interesting to watch this patient for two or three months, but that would have been impossible in an hospital; he was, however, told to return if he felt at all ill.

Sedatives in Delirium.

E. J., aged 40, was admitted Nov. 18, under the care of Dr. Elliotson; he is a chair maker, strong and muscular, formerly of intemperate habits, drinking considerable quantities of rum; he has generally enjoyed a good state of health; but about six months since, he caught cold and suffered under a disease of the chest. He entirely recovered from this illness in a few days, and resumed his work. About a fortnight ago he again caught cold, and was seized with a violent pain in the chest, difficulty of breathing, cough, and fever. He was attended by a surgeon who bled him three times, and gave him medicines, by which means his health became considerably improved. Last week his head became confused, and his intellects were impaired—he was in a state of delirium when he was admitted into the hospital. A strait jacket was employed in consequence of his violence, half a grain of the muriate of morphia was given him.

Nov. 20th. He is much better; perfectly rational; the skin is moist and of a natural temperature; tongue clean; appetite improved; he has, however, great thirst; pulse 80, moderately full; bowels open yesterday. He complains of a slight pain across the forehead, and his voice is very hoarse; there is a troublesome cough; no morbid signs on auscultation. He only took two doses of the

medicine, and was quite relieved and left the hospital.

Dr. Elliotson said, this was a case proving the efficacy of narcotics in delirium arising from weakness, and which is often seen in persons of intemperate habits. It is necessary before administering narcotics in cases of delirium, to carefully observe if there be any flush in the face, or suffusion of the eyes; if there be, it will be necessary to bleed. This man only took two doses of the medicine. It was not only in such cases as this that the sedative plan of treatment was of benefit, but it was exceedingly useful in cases of partial insanity, unattended by inflammation. A case had been recorded in one of the journals (see Dr. Ryan's Journal, vol. 7, p. 381,) in which he (Dr. E.) had employed sedatives with success in a case of monomania. Dr. Seymour had recorded many others. Acetate of morphia is generally preferred by that gentleman, but the muriate is as good. Bleeding and mercury would have been the practice in former times. This man had been bled three times, before his admission, for another disease.

—o—

PROFESSORSHIP OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

Sir Charles Bell is elected, we believe, to the office of surgeon in the University of Edinburgh. An erroneous report has been going the round of the profession, that Mr. Liston was a candidate. Now, the fact is this: Mr. L. said from the beginning, that no appointment could be offered to him which could induce him to leave London; but, of course, he could not but feel flattered that his return to Edinburgh should be desired. He could not feel any objection to be nominated as a candidate for the vacant office, but, as to accepting the appointment, he never had the slightest intention of doing so.

—o—

BOOKS.

A Treatise on the Diseases of the Eye and its Appendages. By Richard Middlemore, M.R.C.S., Surgeon to the Birmingham Eye Infirmary. 2 vols. 8vo. London. 1835.

Rudiments of Physiology, in Three Parts. Part I. On Organism.—Part II. On Life, as manifested in Irritation.—Part III. On Life, as manifested in Sensation and Thought. By John Fletcher, M.D., F.R.C.S.E. Part I. 8vo. pp. 156. Edinburgh. 1835.

A Synoptical Chart of Diseases of the Eye, their Classification, Seat, Symptoms, Causes, and Treatment. By John Harrison Curtis, Esq., &c. &c.

A very correct and useful chart for students and junior practitioners.

Portrait of Professor Tiedemann.

This is an excellent likeness.

On the Perforation and Division of Permanent Stricture of the Urethra by the Lanced Stilettes, with Observations on the Nature and Treatment of Spasmodic and inflammatory Stricture, and various other Urethral Affections. By R. A. Stafford, Surgeon to the Marylebone Infirmary, &c. Third Edition, 8vo. pp. 322. Longman and Co.

The British Medical Almanack, with Supplement, for 1836; containing a Chronological History of Medicine, from the German of Hecker; a complete Account of all the Medical Institutions in England, Scotland, Dublin, and Paris, with Lists of all their Medical Officers the Subjects of Medical and Scientific Prizes, &c. The Supplement contains Dr. Grant's Classification of the Animal Kingdom; Species of Men; Statistics; Weight of the Human Body at all Ages; Laws of Human Mortality, deduced from the latest Observations in England, Belgium, France, and Sweden; Comparative Mortality in all the English Counties; Mortality and Sickness in the English and French Armies; the Proportion of Sickness at every Age; Statistics of the English Hospitals; Cholera; Bills of Mortality; Laws of Disease; Magendie's Formulary of New Medicines, with additions; Creosote; Tests of the Urine; Hydrometer; Auscultation; Percussion; Physical Signs of Thoracic Diseases; Antidotes of Poisons; the Anatomy Act, &c. &c. 1835.

Manual of Practical Midwifery; containing a description of Natural and Difficult Labours, with their Management. Intended chiefly as a Book of Reference for Students and Junior Practitioners. Illustrated by fifteen Engravings. By James Reid, M.D., Member of the Royal College of Surgeons in London and Edinburgh. 12mo. pp. 245. London: Churchill. 1836.

Nouvelles Recherches sur le Rhumatisme Articulaire Aigu en General et Specialement sur la loi de coincidence de la Pericardite, et de l'Endocardite avec cet Maladie, ainsi que sur l'efficacite de la formule des emissions sanguines coup sur coup dans son traitement. Par J. Bouillaud, Professeur de Clinique Medicale à la Faculté de Médecine de Paris. 8vo. pp. 162. Paris and London. J. B. Bailliere.

The Obstetrician's Vademecum; or Aphorisms on Natural and Difficult Parturition; the application and use of Instruments in Preternatural Labours; on Labours complicated with Hæmorrhage, Convulsions, &c., &c. By Thomas Denman, M.D., Licentiate in Midwifery of the College of Surgeons, London, and Hon. Member of the Royal Medical Society at Edinburgh. Considerably augmented and arranged according to the present state of Obstetrics, by Michael Ryan, M.D., Member of the Royal College of Physicians, London, &c., &c. Ninth Edition. Illustrated with Seventeen Plates. 12mo. pp. 231. London: E. Cox. 1836.

THE

London Medical and Surgical Journal.

No. 204.

SATURDAY, DECEMBER 26, 1835.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics ;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXVIII.

*Treatment of Chronic Duodenitis and Enteritis,
and of Hypochondriacism.*

FOR chronic duodenitis the treatment is the same as when the irritation predominates in the pyloric region. I suppose the disease to commence with jaundice, as it commonly does, for the majority of the attacks of jaundice are owing to duodenites, which prevent the bile from descending into the digestive canal, and thus cause its absorption.

When an individual is affected with jaundice, whether there be pain of the right side or not, he always presents the signs of gastro duodenitis — loss of appetite, dry tongue, tension of the hypochondrium, great thirst, &c. A few leeches applied to the region of the pylorus and duodenum do away with these symptoms, and mild drinks finish the cure, provided the disease occupies the first portion of the duodenum, constituting pyloro-duodenitis, and it be recent.

When the duodenitis is of longer standing, or has been treated by one of those administrators of emetics who maintain that gastric disorder is an entity, the specific for which is tartar emetic, it is not so readily cured: there is a tendency to organic change of the liver, and general gastro-enteritis. In such case you should practise bleedings, especially if there be congestion of the liver and the patients be plethoric, great feeders, with broad face and capacious bellies, and daily consumers of huge quantities of food. You first of all bleed, and then apply from thirty to fifty leeches to the right hypochondrium, with emollient poultices, giving at the same time mild and cooling drinks. Have no care of the precept laid down by Hippocrates, not to withdraw wine from those who are in the habit of having it—de-

prive them of it without any pity: they grumble at first, but in a day or two are glad to console themselves with a glass of cold water. If you do not treat them thus, the inflammation seizes on many organs, and you can no longer arrest it. In its highest degree you give them no food at all, but merely saccharine and mucilagino-saccharine drinks. On the reappearance of appetite, and disappearance of the fever, you allow them to have thin arrow root, sago, and similar mild aliments, and two or three hours after ingestion you give them small quantities of some cold saccharine fluid. If they become weak, and these aliments pass rapidly through them, you give them something more substantial. If after long use of aqueous fluids and light food they are no longer able to tolerate them, and are rather capable of digesting meat without bread, you must allow them to take it. Be not exclusive in diet: watery aliments suit strong persons who have not been debilitated, but if you have to deal with weak, flaccid, and asthenic individuals, you cannot always succeed with such aliments, for they surcharge the stomach: you must give more nutritious matters, such as rice cakes, strong soups, eggs—eggs, by the way, are unfit for excitable persons, being almost as irritating as wine—a few mouthfuls of fresh fish or white meat, without allowing to drink at the time, but ordering a small quantity of cold drink two or three hours afterwards. After supporting this diet for some time, you may give them greater latitude.

Green vegetable diet has been too much bepraised as that which is appropriate to duodenitis: it only agrees with strong, full-blooded, and inflammatory subjects. Such persons you may keep on this diet for two or three months, if the disease be of long standing, and we have Van Swieten's authority for this: but give none of your depuratory juices, water cress, horse radish, and such like—it is all quackery. When you have to deal with persons that are always pale, constipated, with colourless motions and no bile, and a tendency to dropsical disease, such diet is improper, it would not be digested. You must then study what best agrees with them, and act accordingly:

in the event of your giving meat, correct it with cold and refreshing drinks.

Generally speaking, these diseases are desperate affairs, for they remain in a state of fixity, the liver having ceased to secrete. Yet I have known persons who, after secreting bile as pale as possible, at length had it as best coloured as the most healthy; and I conducted them to this state by a gradual passage from the lightest to the strongest food. Be not, therefore, too rash in losing all hope of such patients, unless indeed they be inveterate spirit drinkers. Spirits have not only a stimulating effect, but a specific action on the nervous system, which they seem to penetrate, and upon which they produce a modification different from inflammation, for they destroy its vitality, and sometimes give it a species of stimulation that is accompanied with a debility and convulsive agitation of the muscles, that has been called delirium tremens, against which opium is commonly used: of this we shall have occasion to speak hereafter.

I cannot imagine how some persons reconcile themselves to the use of purgatives, calomel, jalap, bitters, &c., with the intent of re-establishing the secretion of the liver. I never saw a patient completely cured by such means. I am aware that purgatives do very well for some individuals, and that they give temporary relief—their constipation ceases, and the appetite returns. But all this is factitious: patients so treated, become tributary to the apothecary, and drag on a miserable existence. In the winter they take pills, and in summer they go to watering places: after eight, ten, or fifteen years they die by consumption or dropsy. *Thus it is that the rich gluttons of England live and die; they are first sick from intemperance, and then they are finished off by purgatives.* If you would have a complete cure, you should make these robust, constipated persons stay by antiphlogistic regimen; apply forty to sixty leeches over the liver if they be males, and twenty to thirty if females; take all stimulants from them, and put them on vegetable diet. If the constipation embarrasses you, either make them drink cold fluids after meals, as before directed, or give slightly purgative clysters: vegetables and ripe fruit will also assist in relaxing the bowels; if the patient is firm to your directions, his bowels will at length open without any artificial means: in this manner I have cured persons that have been constipated for a dozen years. When they have colicky pains, give emollient clysters. Should they have contracted the habit of taking purgatives, gradually withdraw them, and substitute vegetable diet; in this manner I have made many recover who digested artificially by means of purgatives and medicinal waters.

The treatment of chronic enteritis is pretty nearly the same, only that you have the advantage of a sound stomach and duodenum, of the patient not suffering during the first

digestion, and that you have only borborygmi and lancinating pains. If the patient be not broken, and has no large mesenteric masses in the belly, the antiphlogistic treatment may be perfectly successful; but you must place him on diet just as severe as if he had a more serious complaint. Soups are best for him: you have greater latitude as regards the stomach, but for this very reason you should lay down your rules with greater severity.

The nervous sensibility being exalted, you give opium internally in fractional doses, or by the endermic method on the various abdominal regions.

When the disease is far advanced, and there are large and indurated ganglions, probably contractions, ulcerations about the ileo-cæcal region, &c., the case is serious: you must then insist on antiphlogistic regimen for a longer period, and have recourse to exutories.

Treatment of the Neuropathic State consequent on Gastro-enteritis.—I have already stated that this neuropathic condition is frequently conjoined with chronic phlegmasia of the upper portion of the digestive canal, but scarcely ever with that of the lower portion or colon alone, and that this is owing to the greater influence excited by the upper portions over the sensitive centres.

In the first place, this neuropathic state requires the treatment peculiar to its cause, or to partial gastritis, for it seldom attends on general gastritis, which is much too serious to have it alone for a consequence. In fact, the state in question does not indicate any serious disease: hypochondriacs are not confined to bed, and can go about as they please, whereas general gastritis allows of no such thing. The remedy for the neuropathic condition is therefore that of partial gastritis; but are there no others? The empirical physician, who never reasons, may certainly agree in saying it is proper to nourish the patient with feculent and gelatinous substances, apply leeches from time to time to the affected part, &c.; but he would moreover give something else for the nervous symptoms, and what would that be? why, opium, assafoetida, valerian, camphor, musk, in short, antispasmodics, which have a diametrically opposite action to that of emollients, which prevent the cure and give rise to a series of perturbative movements, by which those of the original disease are masked; the patients fancy themselves freed from the disease, but after some time it reappears in a more acute form, and forces him to have recourse to antiphlogistics, after which, he again flies to antispasmodics, and so he goes on, until the disorganization is consummated. Thus it is that the diseases in question are perpetuated, and ultimately prove fatal. Treated in this manner, they represent to you what emetics in gastric disorder represent in a much shorter space of time.

What had we better do? Persuade the patient that when the internal irritation is subdued, the neuropathic condition will cease, and then, if it has not altogether disappeared by the use of antiphlogistics, we must try to get rid of it by other means. I have already pointed out opium and other narcotics introduced by the skin in preference: but the principal remedy, that which stands in place of all others, is distraction, dissipation, open air, travelling, and mineral waters.

To some persons exercise is hurtful, those, for instance, whose circulation is in bad condition, who are subject to congestions of the liver and stomach, or other viscera; when such persons walk, run, or use their limbs, the heart becomes violently agitated, and congestions of the vena cava and the whole abdomen supervene. You must, therefore, in prescribing exercise, think of something else than revulsion, than making the muscles act, exciting the transpiration, and begetting cheerfulness: you must think of the circulation itself, ascertain the effect of walking on the patient, whether it does not render the heart turgid, unequal, and palpitating in action; you must examine the epigastrium and its arteries—an examination that is the more necessary, as many neuropathic patients have really excessive irritability of the heart. More than this: the neuropathic state is frequently caused by a supernormal action of the heart, that drives the blood with too great violence, or by an enfeebled heart, that allows the blood to accumulate in it. We are not acquainted with the secret of the circulation, nor with that of the connexion of the nervous with the sanguineous system, the visceral arteries are surrounded with such a number of nerves, as to be enclosed as it were in a sheath: now, when the heart is strongly agitated, and drives the blood into those arteries, we behold a source of irritation that is not commonly looked to, but which certainly merits close attention. After antiphlogistics have produced their effects, sedatives of the circulation are soon found, such as digitalis, acetate of lead, opium, narcotine, morphia, hydrocyanic acid, or even cold, when the season allows of it; for I am not exclusive in my method, nor do I refuse any remedy: indeed, I am incapable of looking into any question in an exclusive manner: one disease brings all others to my mind. Here then I terminate what I had to say on the chronic phlegmasia of the digestive canal.

Reply to some General Objections.—In this I purpose to glance over some attacks that have been made against me in a Medical Journal.* As this is a serious question, as

indeed all questions are that refer to disease and the preservation of man's life, I think it important to shew you, at least, once in a way the flimsy manner in which my ideas are attacked, and the unfairness with which they are perverted.

"Doubtlessly," says the journalist, "it is a great and happy idea to make physiology the basis of medicine, and on this score the leader of the physiological school has right to claim the laudation of his contemporaries." "*Doubtless it is a happy idea,*" &c. Here is the passport, the flattery, the honey on the vessel's brim. Now look to the bit-
ters. "But has not this idea been strongly abused by the attempt to refer to irritation or inflammation, all the modifications, all the pathological alterations of which our organs are susceptible?" This is false; I do not refer all these alterations to irritation and inflammation, but I do so in great part, because they, in fact, do depend thereon.

"Physiological physicians have placed themselves out of the range of a great number of facts that may be observed, by recognizing in all disease one sole cause, one effect, and, consequently, only one series of therapeutical agents." This again is false; the physiological doctrine is not confined to one only series of therapeutical means. It admits them all, but assigns to each its just value. Its principles are such as can be applied to every kind of treatment. It retreats from no fact, and rather searches out the most extraordinary, in order to submit them to the trial of its principles, or for the purpose of making trial of itself—meantime, it does not leave them isolated, it brings them together into certain groups of ideas, and this it is by which they are characterized.

"What medical man would be induced to believe that a pseudo-membranous inflammation is an inflammation arrived at the maximum of intensity, when he beholds the most irritating medicines, such as concentrated acids, conquer a disease which antiphlogistics aggravate, or, at least, against which they are powerless?" Here you have an insidious phrase: if you desire to serve an apprenticeship to sophistry, you have here the opportunity. They first of all take phlegmasia in general, without making any distinction: yet it must be particularized. Would you study false membranes on the exterior of the body, or at the apertures of the mucous membranes? Now, I affirm it as a fact, having myself done it, that the formation of such in those parts may be arrested by means of antiphlogistics: I therefore give a formal denial to the contrary assertion. In the next place, it is false to say that the formation of false membranes can be so readily stopped by concentrated acids as is asserted. This you may certify by reading

* Most probably the "*Revue Medicale*" is the journal alluded to: it is the organ of those who profess to follow the Hippocratic mode of studying disease, though articles

from time to time appear in it that do but little honour to the name of the father of medicine.—J. M. G.

M. Bretonneau's work, where you will see how patients die by dozens with false membranes developed in the bronchi and digestive passages, at the very time when concentrated acids were being applied. This proposition is, therefore, without foundation. Moreover, concentrated acids are not applicable to any internal viscus.

"Is it possible to consider dysentery as a superacute enteritis, when we see it yield so rapidly to narcotics?" Neither is there more truth in this—they exasperate it. Besides, in the superacute degree, dysentery is commonly accompanied with gastro-enteritis (formerly called essential fever), a fact attested by all the monographs of dysentery. Dysentery is not a *superacute entity*—they have positively dared to print these words; it very often is so, and all the *classiques* believe it. Now, never does opium succeed in any superacute affection: never can a physician who pretends to be an honest man, and who cares for the lives of his fellow-men, bring himself to treat a superacute dysentery with narcotics. We must retrograde far beyond Pinel, if we would erase dysentery from the list of inflammatory diseases, among which he placed it. The observation above can, therefore, only apply to that dysentery which has lost its inflammatory character, and to which I also apply opium. But I do more than these superficial men: I regulate the diet so as to protect the diseased parts from exposure to the irritation of masses of fecal matter. This they know to be my method, but they have a party to uphold, and are only anxious to make dupes at the expense of truth.

"Were lead colic connected with a phlogosed condition of the digestive passages, would it be so readily or so radically cured by the operation of drastic purgatives?" I never said that this disease should always be treated by bleedings: we shall see that there are cases wherein inflammation exists, and others where it does not. But their aim is to make persons believe that I have only a way of viewing and only a medication for use: in short, they aim at overthrowing my system of teaching.

"If we apply to the diseases of the stomach, we shall not be surprised to find described under the name of gastritis a host of varied affections connected with the most opposite modifications of the gastric mucous membrane, and one sole medication opposed to lesions which observation has taught us to combat by the most diverse means." Here is a phrase for common-place people, a phrase that signifies nothing. What are these "most opposite modifications?" What do they mean by the "host of varied affections?" Do they count them by hundreds or thousands? And as for my "one sole medication," is it true that I prescribe

one only? Have I not given an account of the success that is obtainable by using all remedies whatever. They would have you understand that there are more than I have mentioned: but I have mentioned in this course, as well as in my writings, strong food, alcoholic liquors, bitters, narcotics, antispasmodics, purgatives, and sudorifics. All these are substances which irritate the intestinal canal, and I pointed out the cases in which they succeed, those in which they are only palliatives, and those in which they cannot be tolerated. Long enough I have been in the habit of making these distinctions, and it can scarcely be said that I have always remained by one series of means.

"We have never seen the antiphlogistic treatment conquer so rapidly as tartar emetic, that group of symptoms that has been designated by the name of gastric disorder (*embarras gastrique*), and which certainly does not suppose the existence of an inflammation of the stomach." You have never seen: yes, but others than you have seen the antiphlogistic treatment act quite as rapidly as tartar emetic. For my part I have employed both, and during twenty-seven years that I have been in the habit of treating a hundred cases daily, you may imagine that I have had time enough to see a good number of cases of gastric disorder to prescribe plenty of tartar emetic. I no longer do so, though formerly I did: I have cured with tartar emetic cases of gastric irritation which were not inflammatory, but which might become so. I have seen a still greater number exasperated by this remedy, and after hundreds of such proofs, I was obliged to give it up. I have not said that an irritation of the intestinal canal cannot yield to stimulants: I have only maintained that there is no security against attacking the group of symptoms called gastric disorder by emetics, not only on account of the too ordinary danger of aggravating the disease, but because sudden accidents may follow upon its use, for instance, when the digestive organs are on the eve of a perforation, which an emetic might produce instantaneously, or when, with a tendency to apoplexy, hemorrhagic effusion is suddenly hastened, &c. &c.

You see, then, to what all these objections, all these studied phrases are reducible; they are false imputations, perverted facts, assertions that cannot bear discussion. And who emits them? persons who have not sufficient conscientiousness and lack the necessary attention for keeping pace with the progress of science, or who disfigure it in order to serve the purposes of certain coteries. Suffice it for me that I have once convinced you; henceforth I shall not turn aside to notice any of these stupid decriers.

LECTURES
ON THE
PHYSICAL EDUCATION AND DIS-
EASES OF INFANTS,
FROM BIRTH TO PUBERTY.

BY DR. RYAN.

*Delivered at the Medical School, Westminster
Dispensary, Gerrard Street, Soho;*

Session 1834-35.

LECTURE LV.

Diseases of the Eye, concluded.—Blepharitis—Inflammation of the Eyelids—Ophthalmia Tarsi—Edema Tarsi—Tinea Tarsi—Lippitudo—Hordeolum—Chalazion—Syphilitic, Scrofulous, and Cancerous Ulceration.—Ectropium—Encanthis—Entropium—Trichiasis—Distichiasis—Ancyloblepharon—Congenital Vices of Conformation—Corneitis, and other diseases of the Cornea.

Diseases of the Palpebræ or Eyelids—Blepharitis.—This is rarely a primary disease, but is generally caused by purulent ophthalmia, inflammation of the lachrymal sac, external injury, erysipelatous inflammation of the head or face, exposure to cold, smoke, dust, lime, bites of insects, and other external agents. When idiopathic, it seldom extends to the globe of the eye, as we frequently observe in adults. It is sometimes accompanied by œdema, and it may terminate in suppuration or abscess in the lid. It often becoms chronic in scrofulous persons, and occasionally destroys the eyelashes.

The *treatment* in such cases, consists in the application of leeches, cold and saturnine lotions, purgations, and low diet. When suppuration is inevitable, it ought to be encouraged by poultices, fomentations, and the purulent matter evacuated as soon as possible. If the disease becomes chronic, it may be combatted by ointments of ioduret of lead, hydriodate of potass, calamine ointment, the ointment of the nitrate of mercury, or of the red oxide of mercury, formerly called red precipitate.

Edema Palpebrarum is a symptom of the former disease, and also of anasarca consequent to scarlatina. It disappears when these diseases are removed.

Ophthalmia Tarsi—*Psorophthalmia*—*Tarsitis*.—This species of inflammation affects the tarsus, Meibomian glands, conjunctiva, palpebralis, and ciliary margins. The symptoms are intolerance of light, lachrymation, and great itching of the lids. This disease is very common in delicate and scrofulous infants, especially during cold weather.

The *treatment* is antiphlogistic in the acute form of the disease, but it is generally so slight, that this is seldom required. The application of the saturnine lotion, with or without the sedative solution of opium, purgatives, and exclusion of light, are in

most cases sufficient for its removal. When it becomes chronic, it will be necessary to employ weak solutions of zinc, sulphate of copper, nitrate of silver, or oxy muriate of mercury, and the ointments of ioduret of lead, hydriodate of potass with opium, red oxide of mercury, &c. The ioduretted preparations are extremely efficacious in strumous habits, and the general health ought to be improved by mild purgatives, tonics, quinine, carbonate of iron, &c.

Tinea Tarsi.—This term has been employed when the edges of the tarsus are inflamed, and the ciliary margins covered with pustules. In some cases there are numerous pustules round the eye, and more especially when there is porrigo favosa of the forehead and face.

The indications of *treatment* are to improve the general health by mild and occasional purgatives, such as hydr. c. creta, rhubarb, carb. ferri, &c., and to apply saturnine lotions, with the sedative solution of opium, and the other means advised for the disease last mentioned. We observe a vast number of diseases of the external surface of the eye in children at the Free Hospital, Westminster, and Western Dispensaries; and they generally yield very speedily to the methods now recommended, as all of you have observed. The children of the poor are peculiarly predisposed to ophthalmic diseases, on account of inattention to cleanliness, the want of proper aliment, and other comforts of life.

Lippitudo—*Tylosis*.—This is an aggravated form of the last disease, and presents ulceration and induration of the edges of the eyelids, so as to cause the cilia, or lashes to fall out—*ptilosis*. This disease is also very often observed in adults, and generally continues for life. It requires more stimulating *treatment* than *tinea tarsi*, and the same remedies in larger quantities are employed. The following preparations may be used with advantage:—ung. hydr. nit. dil., ung. plumbi iodureti, ung. argenti nitratis, ung. hydr. nitr. oxid., with solutions of nitrate of silver, sulphate of copper, zinc, and acetate of lead, &c. The proportions of these unguents and solutions will be found in my translation of the New Practical Formulary of Hospitals.

Hordeolum—*Stye*.—This is an inflammation of the ciliary margin, which generally terminates in suppuration. In the acute stage, cold lotions, and poultices of bread and water will often remove it, but when it contains matter, this should be evacuated by means of a slight puncture made with a lancet. When the abscess becomes chronic, the matter may be absorbed by a lotion of ioduret of lead, or hydriodate of potass. Some advise nitrate of silver to be applied, with a view of causing sloughing, but this is seldom necessary.

Chalazion—*Grando*.—This term is applied to a small hard tumour on or near the edge

of the lid, which former writers compared to a hailstone. It may contain fluid or a caseous substance, and is caused by an obstruction of one of the Meibomian ducts. It is most frequently observed in adults, and is generally situated under the skin of the upper eyelid. It projects more or less, feels hard, and sometimes inflames, suppurates, or may be absorbed.

I have found the preparations of iodine cause its removal by exciting absorption, and I have also known it to suppurate or remain indolent, when it was necessary to excise it, the lid being first everted. When several small ones appear, they are called *milium* and *phlyctenula*, from their resemblance to millet seeds, and are treated with the same means as those just mentioned.

Tumours of the Eyelids.—Besides the tumours already described, there may be others, which are incysted or fleshy. These may be absorbed or removed by everting the lid, transfixing the tumour with a hook, and excising it with a curved scissors.

Encanthis or enlargement of the caruncula lachrymalis is generally removed by nitrate of silver, or by excision.

Epicanthis is a fold of skin which covers the internal canthus. It is often congenital or accidental, and may be easily excised.

Navi-materni are sometimes situated on the eyelids, and may be removed when small, by vaccination or pressure; when large, a seton double ligature passed through them, as stated on a former occasion, very generally cures them.

Syphilitic Ulceration.—This appears on the eyelids of infants in a short time after birth, and speedily assumes the character of such sores. If mistaken, its true nature will be discovered by the appearance of a copper-coloured, or some form of cutaneous eruption.

It will be necessary to exhibit mercury to the mother, and to apply the black lotion, composed of calomel and lime water, and sometimes the nitrate of silver or sulphate of copper.

Cancerous Ulceration of the eyelids is seldom observed in infants. When it appears as a primary disease in adults, it commences in the form of a hard tubercle, accompanied by lancinating pain, and may terminate in ulceration, which will extend to the globe of the eye, unless the diseased portion is completely excised.

Scrofulous Ulceration is best treated with the internal and external use of iodine: the ioduret of iron is an excellent tonic, and that of lead, a valuable topical application. The general health ought to be improved by the means proper for scrofula.

Ectropium—Eversion of the Eyelid.—This disease most commonly affects the lower lid, and is often caused by purulent ophthalmia in infants, when this is succeeded by ulceration of the lids. The exposure of the in-

ternal surface of the eyelid to the air, and to external irritations, is speedily followed by inflammation and thickening of the conjunctiva, which puts on a fleshy appearance, and is termed *ectropium sarcomatosum*.

The mode of *treatment* in the early stage of this disease is to invert the lid, and retain it in its ordinary situation by small straps of soap or court plaister, and then to apply cold lotions and other antiphlogistic means, if necessary. But this plan will not succeed when the disease is chronic, the conjunctiva thickened, or when there is loss of substance of the exterior covering of the lid. In such cases, the application of the ung. argent. nitratis, the ung. hyd. nitr. oxid, with stimulating or caustic solutions, are to be tried. When these fail, a portion of the morbid growth ought to be removed by excision with a pair of scissors; and sometimes a triangular portion of the lid is excised and the edges approximated by means of sutures. But these operations are rarely necessary when the former measures have been judiciously employed.

There is another malposition of the eyelids which is productive of worse consequences, than the present one, and which I have next to describe.

Entropium—Inversion of the Eyelids.—Inversion of either eyelid causes direct mechanical injury by pressure, and the presence of the eye-lashes, against the globe of the eye, inducing inflammation, opacity, or ulceration of the cornea.

The indication of *treatment* is to restore the eyelid to its natural situation, and this is effected by one of two methods. The first is to apply some caustic to the external surface of the lid, form an eschar of such a size that, when it heals, the cicatrix will draw the inverted lid into its proper place. The second plan is to excise a portion of the eyelid with a pair of scissors or scalpel, and place the edges of the wound in contact by means of sutures. In some cases, a part of the orbicularis has been removed; and when all these methods fail, the ciliary margin must be excised, so as to remove the roots of the cilia. The incision is made within a line or two of the margin of the lid, so as to take away all that portion which presses on the eye and keeps up irritation.

Trichiasis—Inversion of the Cilia.—This disease consists in the inversion of the eye-lashes without that of the lid. It produces all the diseases caused by entropium. It affects infants as well as adults. It may happen that only a few hairs are inverted, and in such cases they may be plucked out with a forceps or tweezers. When the whole eyelashes are inverted, the ciliary margin must be excised, so as to remove the roots of the hairs.

Distichiasis.—This disease consists in a second row, or a part of one, in addition to the natural cilia, and requires the same treatment as in the last-mentioned disease.

Ancyloblepharon.—Adhesion of the *Eyelids* to each other.—*Symblepharon*.—Adhesion of the lids to the globe of the eye are sometimes congenital diseases, especially the first; but the second is generally caused by lime, mortar, red hot iron, or strong acids applied to the eye, which may be followed by adhesive inflammation.

The treatment consists in removing inflammation by ordinary means in the second form, and by dropping almond oil into the eye, or by introducing spermaceti ointment to prevent the disposition to adhesion. The adhesion has likewise been incised both between the lids and these with the eye; and in the first case, adhesive straps are applied to separate the lids, and gold beaters' leaf introduced between them, for the same purpose. It is not difficult to keep the lids separated after the operation, as I once observed in a case in which I operated successfully. Sir James Murray, of Dublin, also attests this fact in the case of a girl whose eyelids adhered in consequence of a burn, and were separated by him, with the pleasing effect of restoring her vision.

The eyelids may be destroyed by burns and other serious injuries. In a case of this kind, Mr. Walker, of Manchester, intended to form an artificial eyelid, but the patient was considered a bad subject for the operation.

Congenital absence of the eyelids, or of a portion, has been described by authors, as I mentioned in a former lecture. When the lid is slit like a harelip, the disease is termed *coloboma palpebræ*. Deficiency or malformation of the eyelids is of extremely rare occurrence, and is generally observed in monsters, which are born dead or nonviable.

Ptosis.—Falling of the upper eyelid is occasionally observed in children, arising from relaxation of the integuments, or paralysis, consequent to hydrocephalus. It is generally cured in such cases by removing the disease which has caused it. When ordinary remedies fail, a piece of the lid is excised, and the edges of the wound brought in apposition by sutures, and then antiphlogistic measures are necessary.

Lagophthalmos, or shortening of the upper eyelid, may be congenital, or caused by burns, wounds, &c. In such cases, the lids remain open, and no operation can remedy the defect.

These general observations having been premised, let us now examine the diseases caused by conjunctivitis.

Corneitis.—Inflammation of the Cornea.—This is a rare disease, unless when the conjunctiva or sclerotica is affected.

The symptoms of corneitis are, a dull, hazy appearance of the affected tissue; red or pink vessels appear in the form of a zone, intolerance of light, and sometimes an infinite number of small ulcers. Coagulable lymph is effused, and opacity between the

external layer and the rest of the cornea, or deeper seated, is very rapidly produced.

The usual causes are conjunctivitis, exposure to cold, injuries applied to the cornea, as when pieces of metal, or certain sharp instruments are projected against it.

Treatment.—The exciting cause, whatever it may be, ought to be removed, if possible.

When a scale of iron, or any foreign body is imbedded in the cornea, it ought to be removed as soon as possible, with the point of a lancet or a cataract needle. Cold applications, especially those composed of the diluted solution of acetate of lead, from ʒss—3ij—iij, in six ounces of water, may be placed and constantly renewed over the eyelids, or directed over the affected parts.

Abscess of the Cornea.—This is an occasional consequence of corneitis, and pus is deposited in the lamellated tissue of the affected organ, more especially in children or adults of a scrofulous habit. In most cases the matter is absorbed, or it excites ulceration, and escapes externally or internally into the anterior chamber, when the disease is termed *hypopyon*. The matter sometimes presents at some portion of the margin of the cornea, and this form is designated *onyx* or *unguis*.

The indications of treatment are to reduce the inflammation, excite the absorption of the matter, if possible, or to evacuate it by means of one or more punctures, and then apply cold, astringent, and absorbent lotions, as in cases of opacity.

Ulceration of the Cornea.—This disease is the consequence of inflammation. When the ulcer is superficial, it may disappear of itself, or require astringent and stimulant lotions, as solutions of alum, zinc, compound solutions of alum properly diluted, or even nitrate of silver, in solution or ointment. The last remedy ought not to be resorted to, unless in severe forms of the disease, as the former ones are usually successful.

The bowels ought to be purged by appropriate medicines, the age and strength of the infant or child being duly estimated. In severe cases, leeches, sometimes venesection, and counter-irritation must be employed. Some authors advise the use of mercury urged to produce ptyalism, but this, in my opinion, is seldom necessary.

When the disease assumes a chronic form, astringent and stimulant lotions, or collyria, are indicated: the compound solution of alum (ʒj to ʒiv of rose water), or the liquor plumbi acetatis, ʒj to ʒiij of the same fluid, with ten or twenty drops of an aqueous solution of morphia, or the sedative solution of opium.

The general health ought to be attended to, and restored by aperients and tonics. The disease is very tedious and troublesome in scrofulous subjects, and may require the external and internal use of iodine, or its preparations, alone or combined with the sedatives just mentioned.

When inflammation exists at the same time, the treatment for conjunctivitis, or catarrhal ophthalmia is necessary.

In those cases in which the ulceration advances and perforates the cornea, the aqueous humour will escape, and the iris protrude, which acting as a foreign body, will excite inflammation, lymph will be thrown out, and adhesion between the iris and cornea may be the result. When the iris is prolapsed (*prolapsus iridis*), the strangulated portion will become agglutinated to the sides of the aperture of the cornea, the further evacuation of the aqueous humour will be prevented, and that fluid will again distend the anterior chamber. The adhesion between the protruded iris and perforated cornea, will inevitably cause deformed pupil, and, more or less imperfection of vision.

The treatment in such cases consists in touching the protruded portion of the iris with nitrate of silver, formed into a pencil shape, every day, or according to some to excise the projecting part with a scissors, and thus to remove it as a foreign body and a source of irritation.

Astringent lotions may be advantageously applied at the same time, and the bowels ought to be properly regulated. The ulcer generally heals in a few days, but as the iris is adherent to the cornea, the pupil becomes more or less deformed, and vision may be slightly or greatly affected.

In some cases of wounds of the cornea and iris, in which the latter protruded, I have returned it with a fine probe, ordered the patient to recline on the back for several hours, applied cold water to the eye, and advised the integuments round the affected organ to be rubbed with strong solution of the extract of belladonna, (℞i—ij—iij to the ℥j of water), with a view of dilating the pupil, acting upon the fibres of the iris, and thereby causing the part lately protruded to maintain its ordinary position, which it is most likely to do when the patient reposes entirely on the back. The cold lotion assiduously applied to the wound in the cornea, favours its union by the first intention, which often takes place very speedily; the aqueous humour is secreted, fills the anterior chamber between the cornea and iris, and prevents the latter from being displaced or protruded. It is also worthy of mention that infantile iritis caused by wounds, is seldom so violent as that of adults; and speedily yields to antiphlogistic measures.

Opacity of the Cornea—Pearl—Nebula—Albugo—Leucoma.—These species of disease are usually caused by corneitis or conjunctivitis, as already mentioned. It often happens, however, that obscurations do not always follow inflammation. In some cases there are no specks whatever, but in most instances there may be one or more. When these occur, there is more or less inflammation, of the eyelids and the enlarged vessels act as irritants; or there are enlarged ves-

sels running from the sclerotic to the speck on the cornea, which are excited by the movements of the lids. The cause in other examples is inversion of the edges of the lids (entropium) or of the cilia or eye-lashes (trichiasis).

The indications of treatment are to remove all causes of irritation, to reduce chronic inflammation, to constrict the enlarged vessels by astringent, and slightly astringent lotions, such as the solution of alum, or nitrate of silver, or oxy muriate of mercury, in the proportion of two grains to each ounce of rose water. Great advantage will also be derived from the alternate use of the liquor plumbi acetatis, in the proportion of half a drachm to three ounces of rose water, with thirty drops of the sedative solution of opium, or a proper quantity of morphia. I have also observed very good effects produced by the ioduret of lead, and protoioduret of mercury, in the proportion of two or three grains of the first, and from a grain to a grain and a half of the second to each ounce of rose water; but either quantity of these medicines may gradually be increased. These preparations possess the power of increasing absorption, and consequently of removing the speck or specks, termed opacity, or pearl.

It is essential to know, that a long use of the nitrate of silver may tinge the conjunctiva of a dark olive hue, but this is of very rare occurrence; perhaps it happens once in three hundred cases. A tint is also caused by a long use of the preparations of lead in ulceration of the cornea. The lead undergoes a chemical change, becomes deposited in the excavation of the cornea, which adheres permanently to its tissue. This disease was noticed about the same time, by Dr. Jacob of Dublin (Dublin Hospital Reports, vol. v), and Mr. Windsor of Manchester (Lancet, Dec. 1830).

Dry collyria, or powders, are sometimes blown into the eye by means of a quill, for the purpose of exciting absorption of opacities, &c. The medicines generally employed are calomel, sugar, calamine, &c.; but these are rarely if ever used in this country. They are still applied in veterinary practice, and sometimes by continental surgeons, more especially when there is superficial cloudiness, technically termed *nebula*; but I have usually succeeded in removing this species with the remedies just mentioned. When the opacity is deep seated between the layers of the cornea, the disease is termed *albugo* or *leucoma*, and is seldom relieved by any means, more especially if the speck becomes of a pearly whiteness.

It often happens that a part or the whole of the lucid cornea becomes white or opaque, after purulent Egyptian, and gonorrhoeal ophthalmia, and in such cases vision is inevitably destroyed. If the pearly whiteness be over the axis of vision, it has been proposed to make an *artificial pupil*, but when

the pearl or leucoma is extensive, the lucid cornea cannot be distinguished from the sclerotic tunic or white of the eye.

It was formerly the practice to apply blisters and setons, issues and counter-irritation behind the ear, or to the nape of the neck, remedies now seldom employed, as they are too violent in cases of children.

Chronic Corneitis—Vascular Cornea.—Chronic inflammation of the cornea is a very common disease from birth to puberty. It is generally followed by some one of the forms of opacity just described. There are straggling enlarged vessels traversing the cornea and terminating in the opacity, which they supply with lymph.

The same treatment as in the last disease is to be employed; and if this fail, the enlarged vessels may be divided with a cataract knife, or partially excised with a scissors, having been previously raised with an eye forceps. I once restored the sight of a young lady by this method, and the history of the case will be found in the Dublin Medical Transactions, 1828, vol. 4.

Staphyloma of the Cornea.—This disease consists in a projection of the cornea in a conical or spherical form, with opacity and loss of vision. It is a very common occurrence after purulent ophthalmia in infants and adults. It is scarcely necessary to remind the anatomist and pathologist that the displacement of the cornea may cause displacements of the other tissues of the eye. We observe, accordingly, that the iris is often in contact with the cornea, the anterior chamber is obliterated, and the posterior is enlarged. On inspecting the eye, we find the cornea more or less opaque, the iris in contact with it, the posterior chamber enlarged, and sometimes extended into the vitreous humour.

When the cornea projects so as to prevent the closure of the eyelids, great irritation of the eye and its coverings will be induced, and an operation will be necessary in extreme cases. It often happens, however, that staphyloma does not protrude beyond the eyelids in children and adults, and no operation is necessary.

Treatment.—When the operation is deemed advisable, it is performed as follows:—a cataract knife is passed transversely through the cornea, a little anterior to its union with the sclerotic, and the edge is brought downwards and outwards. A flap is thus formed, which is raised with a forceps, and excised with an eye scissors. As soon as the cornea is excised, the aqueous humour escapes, and the eye collapses. Cold applications are now constantly placed over the eyelids, and are composed of water or the saturnine lotion, and a bandage or roller is passed round the head, without compressing the eye. The great object now is to prevent inflammation, for should this disease supervene, the original complaint may return.

The patient should be kept in a dark room, the sound eye closed, and bleeding, leeching, cold applications, purgatives, and diaphoretics employed, if necessary.

Should inflammation supervene in despite of these remedies, and the eye become distended again, it will be advisable to puncture it with a lancet, and this generally affords great relief.

The progress of staphyloma is so slow in some cases, that it has been advised to arrest it by applying nitrate of silver. This form of the disease has been designated *partial staphyloma*. It must be obvious to the pathologist that the disease cannot be arrested by the use of caustic; and I may add, nor by any other means, in many cases.

Conical Cornea.—This disease bears some resemblance to staphyloma. It consists in a projection of the centre of the cornea in the form of a cone; and injures vision by producing short-sightedness. It seems to be caused by the absorption of the centre of the cornea, induced by the pressure of some part of the globe of the eye. It is an incurable affection. When it occurs in children from the age of seven to fourteen years, the defective vision may be in some measure remedied by the use of concave spectacles. It has been proposed, but is seldom followed, to extract the lens so as to diminish the excessive rays of light, but the operation is perhaps never performed at present.

Fungosities of the cornea are occasionally met with, and may be removed by the preparations of iodine and mercury, with the astringent lotions advised for opacities. When these fail, the fungous growths are seized with a fine forceps, and removed with a pair of scissors. Some surgeons strongly advise the application of the nitrate of silver to repress them when they begin to reappear.

Wounds of the Cornea.—These are inflicted with sharp instruments, and are easily cured in most cases, provided the iris is not injured. I have treated cases caused by wounds with scissors, penknives, nails, sharp pieces of wood, &c. They readily yield to the antiphlogistic treatment, but are mostly followed by more or less opacity, which is to be treated in the manner mentioned when describing that disease.

The treatment consists in leeching, purgation, cold applications, and keeping the eyelids closed by means of soap or court plaster, which will keep them quiet, and prevent friction on the injured part. In this, as in all the forms of ophthalmia, the other eye ought to be covered, and the room darkened for one, two, three, or more days.

Such is a brief account of the commonest diseases of the eye, in infants and children. All the other tissues which compose the organ of vision, are liable to diseases; and these are described in monographic treatises, manuals, and surgical works. When I state

that some works on diseases of the eye occupy 1,600 pages* octavo, I need scarcely observe, that it is impossible in a course of lectures on diseases of children, to do ample justice to the subject.

Organs of Sense—the Vices of Conformation and Congenital Diseases of the Auditory, Olfactory, Gustatory, and Palpatory.—The vices of conformation of the organs now mentioned, have been described on former occasions, when the subject of occlusion and absence of parts were under consideration. The organs are rarely affected with disease during the intra-uterine life of the fœtus.

Cases of congenital deafness or dumbness, are of very rare occurrence, and seldom admit of cure, though infants so affected may be instructed, and even educated, in asylums devoted to them exclusively. Aural surgery is in a most deplorable state of imperfection in this kingdom; there is not even one good or extensive work on the subject. Some few of our treatises are scientific on certain parts of the diseases of the ear, but most of them are erroneous and empirical. We must therefore refer to the standard works on medicine and surgery for information concerning diseases of the organ of hearing. Diseases of the organ of taste are rarely observed in children, except those already described.

Vices of Conformation, and Diseases of the Organ of Palpation or Touch.—The vices of conformation of the skin, were described in a preceding lecture. The congenital diseases are exceedingly numerous, and require to be fully described, as many of them not only appear on the premature and full grown infant at birth, but also during childhood, adolescence, manhood, and old age. I shall therefore occupy several lectures, in placing before you the nosologies of all former and recent writers; and attempt to give a complete history of the nature and treatment of cutaneous diseases. I shall lay all authors, both ancient and modern, on the subject, under contribution, arrange their facts and conclusions, and add the result of my own observations, during several years as physician to three of the largest dispensaries in the metropolis. But as diseases of the skin form a part of my course of lectures on the Principles and Practice of Medicine, I shall describe them in that department of science.

I have now concluded the history of vices of conformation, of the congenital and other diseases of infants, and think it right to direct your attention to their importance in the practice of medicine. The account I have given abundantly proves, that infants may be born so deformed, or diseased as to be incapable of surviving but for a short time, and of never arriving at maturity. This is so important a fact, in trials concerning prolicide, that I shall submit a tabular view

of congenital diseases in favour and against viability, the knowledge of which may save persons accused of this crime, when the infant was so constituted that it could not possibly survive, or arrive at the adult age.

M. Billard gives the following table of congenital diseases in favour and against infantile viability, which I consider correct, and of great importance in medico-legal inquiries concerning prolicide:—

1. *Vices of Conformation, and Diseases necessarily mortal.*

Absence of the skin, with want of the parietes of the splanchnic cavities (eventration).

Obliteration, division, or duplicity of the œsophagus.

Ulcers and gelatiniform ramollissement of this organ before birth.

Obliteration of the stomach.

Its gelatiniform ramollissement developed before birth.

Obliteration, division of the superior parts, or the middle or inferior third of the digestive canal.

General ramollissement of the intestinal mucous membrane, developed before birth.

Dropsy of one or both kidneys.

Obliteration and cohesion of the rectum to the bladder.

Malformation of the nasal fossæ, with monopsy.

Hernia of the abdominal organs into the thorax.

Inflammation of the pleura, lungs, bronchiæ, developed before birth, or during parturition.

Inability to dilate the cavity of the thorax, in consequence of the feebleness of the infant.

Congestion of the lungs and of the heart, at the moment of birth.

A single heart, with one auricle and ventricle.

Division of the heart into two parts, by a complete septum.

Pericarditis developed during intra-uterine life.

Accephaly and anencephaly.

Vices of conformation of the spinal marrow.

Hydrocephalus, with considerable deformation of the cranium.

Encephalocele with hydrocephalus.

Apoplexy, complicated or not with fracture of the cranium, occurring before or during parturition.

Ramollissement of the brain.

Hydrorachis, with ulceration of the tumour.

2. *Diseases which are not necessarily mortal, but prevent the development of independent life.*

Ecchymoses, contusions, sanguineous tumours, cynopathy.

Nævi materni inordinately developed.

Cutaneous inflammations.

Adherence of the lips.

Excessive length of the tongue.

* Middlemore on Diseases of the Eyes.

Extreme shortness of the pharynx.

Simple œsophagitis.

Follicular ulcers of the stomach.

Simple contractions of the intestines.

Imperforation of the anus.

Intestinal hæmorrhage.

Calculus nephritis.

Peritonitis with or without dropsy.

Vices of conformation, or depression of the thoracic parietes.

Communications more or less considerable, either between the auricles or ventricles of the heart.

Hydrocephalus more or less advanced, without separation of the bones of the cranium.

Imperforation or absence of the vagina.

Accumulation of mucus in the bronchiæ.

3. *Diseases which do not oppose viability.*

Simple absence of the skin.

Cutaneous excrescences.

Excessive development of the capillary system.

Albinism.

Stationary nævi materni.

Harelip and cleft palate.

Transposition of the stomach and abdominal viscera.

Absence of one kidney.

Hypospadias, epispadias, and pleurospadias.

Extroversion of the bladder.

Umbilical and inguinal hernia.

Transposition of the heart.

Contractions of its orifices, anomalies of their valves.

Persistence of the foetal openings some days after birth.

Cerebral atrophy.

Hydrorachis without ulceration of the tumour.

Fractures, luxations, and divisions of members.

The following conclusions may be drawn concerning viability in relation to the pathology of new born infants.

1. That every infant which has respired, and is affected with any of the diseases in the first order of the above table, cannot be considered viable.

2. That every infant that has respired, and is affected with the diseases in the second order, is viable, but not likely to arrive at maturity.

3. That every infant that has respired, affected with any of the diseases in the third order, is evidently viable*.

I have now, gentlemen, to thank you for the great attention which you have devoted to the study of the physical education, the pathology and treatment of the diseases of our species, both at and after birth, and from the latter period, until the age of puberty. I have placed before you a brief account of the vices of conformation, mal-

formations, diseases of infants during intra-uterine existence, at and after nativity, and considered them according to the received principles of physiology, pathology, and therapeutics. I have attempted to arrange a scientific system of infantile medicine, with an ardent hope to convince the rising portion of our profession, that this class of diseases are as much entitled to their consideration as any other, and that these maladies require somewhat more extensive remedial means, than the warm bath, Godfrey's cordial, and the remainder of the anile code, which are still too much employed by a large portion of medical practitioners. I flatter myself with the hope that the precepts you have heard with such exemplary attention, will enable you individually to alleviate much human suffering, in a class of beings which require so much care in their physical and medical management. In accordance with the unanimous request of your predecessors in this school, as well as of yourselves, I have commenced, and intend to complete the publication of these lectures. I have given them exactly as delivered, with the exception of the practical formula for infants at different ages, which will appear at some future time. I may venture to state that many gentlemen in practice in different parts of this country, have, I am sure, estimated much too highly the preceding lectures. I am deeply sensible of the objection that might be made to the language in which they were published; but to critics who would urge this objection, I should reply—the language of a medical lecturer ought to be as plain and intelligible as possible, as some of his auditors have, unfortunately, received an imperfect preliminary education, and cannot understand technical terms without expletives; it is his duty to instruct every one of his pupils, and in my opinion he would violate it, if a single student did not fully comprehend his meaning, however tiresome his phraseology might be to the better educated, and older pupils of his class. Others might also object to the use of language so technical as some which was employed, and especially to terms in use in other countries, with occasional additions. To these I should reply, I see no reason why our terminology should not be as classical as that of any other country.

It also might be said, that many of the diseases of infants were treated too superficially; but those who would urge this comment ought to recollect, that medical students of the present day, attend extensive courses of lectures on practical as well as theoretical medicine, surgery, obstetrics, and therapeutics, and have little inclination and less time to be fatigued with useless repetitions. It is scarcely necessary for me to observe, that a vast number of medical, surgical, and obstetrical diseases mentioned in this course on the maladies of children, were described

* *Traite des Maladies des Enfants, &c.* 1833.

by me as regards adults; and, therefore, only required to be adapted to the early periods of human life. Moreover, my views on the former subjects are before the medical public, and are given in my other lectures.

In fine, I again offer you my best acknowledgment for your diligent attention to the study of a branch of medicine unaccountably neglected in this country; but which you will find as interesting and as important in your practice as any other.

—o—

MANUAL OF OPERATIVE MEDICINE.

BY M. MALGAIGNE.

FREELY TRANSLATED AND CONDENSED

By GREVILLE JONES, Esq.,

Lecturer on Anatomy and Physiology.

CHAP. IV.—Of Operations which especially interest the Skin and the Cellular Tissue.

THE general operations of which we have to treat in this place, relate to the following subjects:—1, Abscesses; 2, Cysts, with liquid contents; 3, Tumours; 4, Wounds and foreign bodies; 5, The restoration of mutilated parts; 6, Bad cicatrices.

* SECT. I.—Of Abscess.

There are four modes of opening an abscess, by caustic, puncture, seton, and incision. 1. *Caustics*.—The ancients employed the red hot iron; at present, potassa-fusa is in use. The modes of applying caustic have been before mentioned, but we may add here, the method adopted at the great hospital at Vienna. Five parts of caustic potass are beaten in a mortar, with about six of unslaked lime, added by degrees. This is moistened and formed into a paste with alcohol or eau de Cologne. A layer of this paste, about two lines thick, is placed on the part with a silver spatula moistened with alcohol. With the spatula, the extent of the cauterization is determined, for this preparation, unlike caustic potass, does not cause an eschar of greater dimensions than the application itself. In about six minutes after its application the skin becomes destroyed down to the cellular tissue, which is known to have taken place by the appearance of a grey line along the borders of the caustic. This is taken away, and the eschar washed with vinegar and water. To produce a deeper eschar, the paste may be left on for ten, fifteen, or twenty minutes. The pain is very moderate, often less than that of a blister. Besides great quickness, this method has the advantages of preventing the sore from being formed larger than we wish, and the lime, by removing any carbonic acid from the potass, renders the latter more active. 2. *By Seton*.—It is applied, as to other parts, but is fallen into disuse. 3. *By Puncture*.—A simple puncture is made in the ordinary manner. Lyon made the punctures with a red hot instrument, and emp-

tied the abscess with a syringe. In some cold abscesses, it has been advised to puncture with a trocar, and then force an injection through the canula. Recamier recommends this when the pus is fetid, and its absorption is feared. Boyer taught us to puncture large abscesses obliquely, and having evacuated the pus, to cover the opening with plaister, and again, after some days, to make a fresh puncture, and so on successively, in order to give the points time to contract and to prevent the access of air. 3. *By Incision*.—We have before sufficiently described the mode of making incisions; we shall merely notice here, some general rules:—that an abscess should be opened quickly; with one extremity of the incision at the most dependant part; in the direction of the long diameter of the abscess; in the direction of the axis of the body or some fold of the skin. When an abscess is very large, it is better to make several small incisions than one very large. It is better, when a muscle covers an abscess, to separate its fibres without cutting them across if possible.

In opening some very deep abscesses when the fluctuation is obscure, it will often be necessary to adopt the following precautions. With a convex bistoury, the parts covering the abscess may be divided layer after layer, until, with the finger, we are assured of fluctuation; or the skin may be divided, and then the remaining tissues torn through with the handle of the knife, until the abscess be arrived at. When we have divided by layers, the tissues to a considerable depth, it will be advisable to fill the wound with lint, and leave it until the abscess comes forward of itself, which our division will much facilitate, even although it should not have been made over the centre of the tumour. Dr. Graves, of Dublin, has employed this method advantageously in abscesses of the liver, and M. Dupuytren had recourse to it with success in a deep abscess of the thigh.

With regard to some particular abscesses—those of the face should generally be allowed to break themselves, to avoid cicatrices; or they may be opened with a lancet if they are too slow in coming forward. Those which occupy the thick part of the cheek, ought to be opened in the inside of the mouth. Abscesses of the parotid region should not be opened until the whole tumour is dissolved into one cavity, and a large opening should be made. If these precautions be neglected, the aponeurotic layers, which abound in this part, will keep up a tedious induration, and often give rise to numerous sinuses. In abscess of the axilla, we must bear in mind the situation of the artery near the union of the anterior third with the middle third of the axilla. To avoid all danger, M. Velpeau advises the arm to be raised as much as possible, and the abscess to be punctured from above downwards with a straight bistoury held like a pen, the inci-

sion being completed from within outwards. *Abscesses of the groin, or bubos*, may be opened either with the knife or potass. The direction of the incision ought to be perpendicular to the fold of the groin, for if made in a parallel direction, the lips of the wound are apt to curl inwards, and cicatrization is rendered difficult.

SECT. II.—Of Cysts, with Liquid Contents.

1. *Cysts of the Skin, or Sebaceous Tumours.*—*Anatomy.*—Formed by the development of the sebaceous follicles of the skin, and of variable size, these cysts, when very small, are denominated “tannes;” and their orifice is marked exteriorly, by a black point. But this orifice is often obliterated; the tumour acquires a considerable volume; it contains a viscous, transparent or whitish liquid, or a pulpy substance resembling honey, “boulle,” thick suet, &c. The parietes appear to be formed of cartilaginous layers, which have very little adhesion to the subjacent cellular tissue.

The Operative Proceedings.—Injections, sections, cauterization, (with potass when the tumour is large, with nitric acid on the point of a pen when small) incision, extirpation, excision have been proposed. The two last alone require any description here.

Extirpation.—The ordinary mode is, to make an incision along the skin with a convex bistoury, taking care not to open the cyst, if it can be avoided. Then the surrounding cellular tissue is to be separated by raising and drawing it with the fingers, or a hook, or by means of a thread which had been passed through it.

The Method of A. Cooper.—When the cyst is old and the parietes firm, this surgeon cuts through it at the same time with the skin, and empties its contents. Then detaching its parietes to a small extent from the skin, he takes the cyst between the thumb and finger of the right hand, furnished with a compress to prevent their slipping, and draws it out, favouring at the same time its extraction by tearing the cellular tissue with the thumb of the left hand. This also is the method of proceeding which M. Dupuytren follows: it gives little pain and does not occupy a minute. The wound is to be united by the first intention.

Excision—Chopart's method.—In cases, when the base of the tumour being very large, its extirpation would cause an enormous wound, we may remove the indurated portion of skin and cyst which forms the summit of the tumour, and leave the bottom of the cyst which will unite with the circumference of the integuments. A puncture is first made at the most dependent part of the tumour in order to empty it. Then the finger is to be passed into the cyst, the part which is to be removed is to be lifted up with it and cut out with the bistoury or scissors. After the operation, the bottom of the cyst exposed to the air acquires the

hardness of wax. In time some of the layers are detached, by degrees the surrounding skin becomes contracted, and by degrees the tissue of the cyst is found to have disappeared, and to have given place to a small cicatrix.

Cysts of the Cellular Tissue—Serous, Mucous, Cysts, &c—Anatomy.—These are collections of serosity, or other liquid of greater or less consistence developed in the cellular tissue, from which, frequently, they derive a true envelope: at other times the liquid is in contact with a serous surface without real walls. It is impossible, in the first instance, to distinguish the two cases, but when operating we soon discover the absence of parietes, and the difficulty, or indeed, impossibility of dissection. The methods of operating are the same as for the tumours before mentioned, with the exception of incision. But if the tumour has not parietes, extirpation even ought not to be attempted: it will be sufficient to make an incision and promote suppuration and adhesion, by the introduction of charpie or irritating injections. If the cyst have parietes, it must be separated from the surrounding parts by the fingers, scissors, or bistoury, care being taken not to open it unless its parietes be too weak to resist traction. When incision is adopted, and the tumour being very large, great irritation, or the absorption of pus, or the vitiation of the pus by the introduction of air is feared, it will be better not to evacuate the tumour completely, and to replace part of the fluid which is removed, by an injection of warm water, in order that the parietes may contract by degrees. This is the method of M. Recamier, already mentioned when speaking of abscess.

Synovial Cysts.—They are of two kinds; one a species of dropsy of the subcutaneous bursæ mucosæ, as of those on the olecranon, patella, between the hyoid bone and thyroid cartilage, &c.; the other consists in the development of the synovial bursæ of certain tendons, and are called *ganglions*. *Proper synovial cysts* are to be incised freely, or even if the dilatation be considerable, an elliptic flap of integument may be removed; then suppuration and adhesion are to be promoted by the introduction of charpie, either dry, or wetted with irritating fluids. For *ganglions*, compression is advised, or opening them with a very small incision; or rupture of the cyst, without opening the skin, by striking them with a firm body, such as a bound book, or a seal covered with linen. Sabatier applied the left thumb upon the ganglion, then with the other thumb resting on the former, he pressed forcibly until the cyst appeared hollow, and the contained tumour diffused into the cellular tissue. Slight pressure and frictions renewed for two or three days favour the absorption of fluid, and the patient is cured.

Cysts containing Hydatids.—Ought to be opened and emptied with care, and treated afterwards like cellular cysts. M. Kuhn

reckons among these cysts those which M. Dupuytren has remarked opposite the articulations of the hand and foot, and which contain little white bodies. These are frequently under the annular ligaments, above and below which they form eminences divided by the ligaments. Puncture, followed by the evacuation of fluid, and of the little white bodies, has succeeded once; in other cases the disease returned; M. Dupuytren prefers, therefore, the following procedure: one of the tumours is made to project by compression made on the other. This is incised and a director passed through it, and under the annular ligament into the other pouch, which is raised against the integuments, in order to indicate the place for a second opening. This being made, a seton is to be passed through both orifices, or separate skeins in each. The setons are to be withdrawn in thirty-six or forty-eight hours; the irritation produced will prove sufficient to bring about adhesion of the parietes of the cyst.

This operation is long and difficult; it often brings on violent inflammation, which spreads along the aponeuroses of the hand and forearm, and gives rise to numerous abscesses; we have once seen these accidents destroy a patient.

SECT. III.—Of Tumours.

Tumours are distinguished from cysts and abscesses by being always formed of solid productions. They are sometimes surrounded by a cyst; sometimes, although devoid of a cyst, insulated from the neighbouring tissues by a lax cellular tissue; at other times they are so confounded with the adjacent structures, that their precise limits cannot be determined.

1. *Of Tumours in General.*—It is often difficult to discover the intimate structure of a tumour, or even to distinguish it from cysts containing fluids. When fluctuation is obscure, recourse is had to an *exploring* puncture with the bistoury, trocar, or acupuncture needle. The bistoury is only proper when it is decided that the tumour must be removed, and the only question that remains is as to the mode of operating. The trocar, making a smaller wound, and being less liable to injure the nerves or blood-vessels, is preferable to the bistoury. The needle serves for cases in which the use of the trocar might be dangerous, as in tumours resembling aneurisms. The needle likewise serves to shew, by the extent of motion it can undergo, whether there is a free cavity in a tumour—a useful point of diagnosis, for example, in hydrocele, with thickening of the tunica vaginalis.

In employing the bistoury, it is requisite to observe the following rules:—1st. To determine on the kind of incision. The straight incision, not permitting more than a limited separation of its edges, is only convenient for small tumours placed imme-

diately under the skin, and free from adhesion; an incision in the direction of a fold of skin is convenient in extirpating encysted tumours which we fear to open, or solid tumours which it is advisable to avoid cutting, lest any portion capable of growing again should be left behind. The elliptical incision is preferable when it is proposed to remove a tumour with a flap of skin, either because this is diseased or redundant. The crucial incisions, and those in form of T or V, are indicated when it is desired to expose a large tumour without removing any portion of the skin that covers it. 2nd. Whatever incision be determined on, it should be longer than the base of the tumour, and the dissection should be made with long strokes, the edge of the knife being directed either towards the skin or the tumour, accordingly as we wish to be particularly careful of wounding one or the other. 3rd. The neighbouring muscles, tendons, vessels, or nerves, must be guarded or pushed aside by the fingers, forceps, &c. 4th. We should be well assured when the principal mass is removed, that no remains of it be left behind, especially if the tumour be of a suspicious character; anything of the kind should be removed with the knife or scissors, or destroyed by the actual cautery. 5th. When the tumour is of enormous size, a part of it only may be exposed and removed. After a few days, when the consecutive fever has ceased, we may remove a second portion, and so on, until the whole is extirpated. 6th. The wound should not be dressed until the vessels are tied, and the hæmorrhage has ceased. It is usually united by the first intention with sutures or agglutinative bandages.

2. *Of particular kinds of Tumours.*—1. *Encysted Tumours.*—Their nature may vary: their relations only are of interest to the operator. The skin and the investing cyst being cut through, the tumour is to be pressed with the fingers, in order to cause it to come out. When this occurs, it is to be seized with the fingers, or a pair of tenaculum forceps, and the cellular bands, which keep it attached to the bottom of the wound, may be divided with the bistoury held *en dedolant*.

2. *Fatty Tumours.*—These usually adhere but little to the neighbouring tissues. They present three different forms. 1. A flat tumour with a large base; the skin being cut through to the surface of the tumour, the latter is to be dissected right and left with the handle of the bistoury, or the fingers; there is seldom occasion to use the edge of the instrument. Then the tumour is to be turned out, and held with a hook, and the remaining adhesions divided with the scissors. 2. A large and projecting tumour. A flap of integument must generally be removed with the tumour, and its intimate adhesions dissected with the bistoury. 3. A pedunculated tumour. It

may be removed by dissection, the requisite quantity of skin only being left; or a ligature may be placed around it, a circular incision having previously been made through the skin. When the patient has much fear of the knife, Sabatier advises the ligature to be steeped in nitric acid and applied around the skin. This is destroyed by the caustic, without much pain, and afterwards the ligature causes none.

3. *Scirrhus and Carcinomatous Tumours.*—The knife, fire, caustics, ligature, and compression are employed in these cases. All these methods may be of use in particular instances, but we have nothing to add to the general rules before mentioned. M. Olivier advises inoculation with hospital gangrene in the centre of these tumours, and, indeed, of all others of a grave character. It is a desperate remedy adapted to desperate cases.

4. *Medullary and Hæmatoid Fungi.*—Extirpation is the only remedy: frequently, when the limbs are affected, amputation is necessary.

5. *Erectile Tumours.*—For these a variety of methods have been proposed. 1. Astringent and refrigerant applications: they are means of slight efficacy, which succeeded, however, once with Abernethy. 2. Compression: a deceptive and often dangerous method, when the tumour is large; but it may be useful with tumours that are very small, and so situated that they may be perfectly flattened. 3. Ligature. White says that he has passed a needle across a large erectile tissue, and tied the two halves with success; but this mode does not secure us from leaving behind a portion of the tumour, and may give rise to hæmorrhage, and to a recurrence of the disease. Genoul restricts the use of the ligature to cases where the base of the tumour is so small, and the neighbouring skin so lax, as to permit the tumour to be perfectly raised and insulated. Mr. Keate passes beneath the base of the tumour a straight needle, or two needles crossing each other (when it is very large), and applies the ligatures between the needles and the sound skin. 4. Caustics are advised by Wardrop. Mr. Guthrie recommends the nitrate of silver when the nævus is small and superficial. 5. The inoculation of different kinds of virus. M. Cumin advises numerous punctures with vaccine matter: M. Olivier inoculation with hospital gangrene. 6. Actual cautery. M. Maunoir has obtained by this means a perfect cure. M. Dupuytren regarded it as one of the most potent and rational methods: but the results being more serious than those which follow extirpation with the bistoury, its employment should be confined to tumours too extensive, thin, and confounded with the surrounding tissues, to allow of extirpation; and it may be employed, after extirpation, to destroy such remains of the morbid structure as may have escaped the bistoury. 7. Ligature of

the arteries. By compressing the arteries which go to these tumours we perceive them become flabby and soft, their pulsations disappear, and their volume diminishes. Hence the idea of tying all the arteries of the second order which pass to the tumour—an attempt which has not succeeded. More success has attended tying the principal trunk—as the carotid artery, for erectile tumours of the ear, orbit, &c. But, as in many cases, the tumour has reappeared, this method does not promise certain results. 8. A circular incision at the base of the tumour. This has been practised by Physick, with the view of more completely dividing the vessels. It is requisite that the incision should be made on the sound structure, should completely divide the skin and the subcutaneous cellular tissue in which the vessels are embedded. Some of these are tied, and the wound filled with charpie, to prevent immediate union. 9. Extirpation. This is effected with the bistoury used very carefully. An important precept is to remove the dissection as far as possible from the limits of the tumour, for the nearer we are to them the more vessels will require ligature, and if we cut into the tumour itself an oozing hæmorrhage will occur that can scarcely be restrained. If any part of the tumour should have escaped the bistoury, the actual cautery must be had recourse to.

All these methods may be of use: circumstances only ought to direct the surgeon's choice.

SECT. IV.—*Of Wounds and Foreign Bodies.*

Simple punctures rarely require the use of instruments; to wounds with cutting instruments the means are to be employed which we have before pointed out; lacerated wounds require no more, except the occasional removal of torn flaps which pass beyond the wound. This may be performed either with the knife or scissors.

1. *Of Wounds inflicted by the Bites of Rabid Animals.*—It is advised, in order to prevent the absorption of the virus, to wash the wound, to apply cupping glasses, to make a ligature between the wounded part and the heart, to open the veins which have their radicles near the wound, or to use cauterization. This may be performed with the actual cautery or caustics. The latter are preferred, particularly the butter of antimony. The rules for employing caustics have been already laid down; we have only to add here, that it is of the utmost importance to leave no point of the wound untouched*.

The same rules apply to the bites of venomous animals: the bite of the viper

* No security against the occurrence of hydrophobia is attained by any of these methods. Extirpation should always be performed, if possible.—T.

seldom requires cauterization. When this appears indicated, potass may be employed, or a piece of cotton imbued with alcohol, burnt on the wound.

2. *Of Wounds from Fire-arms.*—These, independent of the complications they are liable to in common with other wounds, require themselves only one operation, that of dilatation. There is a difference on this point between the French and English surgeons. The former dilate, in almost all cases, with the object of converting the contused wound into a bleeding wound, and of preventing strangulation. It is recommended to dilate as much as possible, and to carry the incisions along the whole course of the wound. But Hunter had very truly remarked that undilated wounds get well sooner than those which have been dilated, and that the incisions tend to increase the inflammation, which is the principal cause of the strangulation. We agree perfectly with the English doctrine, and confine dilatation to the following cases:—1. When the ball has traversed aponeurotic tissues, and the first signs of strangulation are manifest. 2. When it is necessary to enlarge the wound in order to extract foreign bodies, pieces of bone, or to tie vessels. It is in the latter cases only that it is necessary to make the incision along the whole course of the wound, until we arrive at the vessel to be tied, or the bone to be extracted. If the only object be the removal of incipient strangulation, it is sufficient to cut through the fibrous tissues which produce this state.

These general rules should also be observed. 1. To make the dilatation parallel to the axis of the limb, avoiding the vessels and nerves. 2. To direct the bistoury with the finger or director, and to make it cut from within outwards. 3. To enlarge the wound as much as possible on the most dependent side, in order to favour the discharge of pus. 4. If the fleshy parts are strangulated by an aponeurosis, to cut this first along, then across, or even, if necessary, in the form of a star. 5. To carry the incision the whole length of the strangulation. 6. To dress the wound simply, avoiding the reunion of the incisions by the first intention.

Dilatation is confined to wounds of the cranium or limbs. It is forbidden in penetrating wounds of the chest and abdomen.

3. *Of Foreign Bodies, with or without Wound.*—Foreign bodies are of several kinds. Some round, or of such a form that their dimensions do not materially differ, are driven by various forces into the deep parts without leaving any portion externally by which they can be laid hold of: such are balls, shot, wadding, pieces of clothing, &c. Others have an elongated form, and may often be seized by one of their extremities: such are the blade of a knife, or of a sword, a splinter, &c.

In general, it is accompanied by the

wound which permitted its introduction, but very often a ball or a needle is lost in the tissues, and remains there after the wound is closed.

1. *Of the Extraction of Balls.*—This is effected by the fingers when the ball is little engaged, which is, however, rarely the case. Many instruments have been invented for the extraction of balls more deeply seated, but they have all been superseded by the forceps. Of these, either the common dressing forceps may be used, or those used to extract polypi, or, what are better still, those invented by M. Charriere, the handles crossing one another so as to permit the branches to pass forwards in almost parallel lines. The general rules to be observed, are—1. To ascertain the situation of the ball by examining the course of the wound, by procuring information as to the position of the wounded person at the time of the injury, by sounding the wound, and examining all points of the limb to which it is presumable the ball may have been directed. 2. To make the requisite dilatations to allow the ball a free exit. 3. To divide the cellular tissue, which often embraces the ball like a cap. 4. If the ball causes a prominence at a distance from the opening of the wound, to make an incision over the situation of the former. 5. If the ball be impacted in bone it may sometimes be removed by the trepan, or if abandoned, the wound will often heal well. 6. If the ball be deeply concealed in the soft parts, so that it cannot be felt, and requires large incisions to enable us to lay hold of it, the case had better be left to nature. 7. When the ball is lodged between two tendons, it is sometimes necessary to cut one of them. 8. If lodged between two bones, as the leg, fore-arm, metacarpus, or metatarsus, the ball may be loosened and extracted with a common spatula. 9. If in making these attempts hæmorrhage be feared, the main artery of the limb should be compressed by an assistant, or with the tourniquet.

2. *Of the Extraction of other bodies which do not protrude Externally.*—Grains of powder may be extracted from the skin with the point of a needle: a tedious operation, which is only partially successful. Splinters of bone, fragments of wood or glass, portions of clothes, &c., may be drawn out with the dressing forceps, assisted by the requisite dilatations. If any foreign body be lost in the tissues after the healing of the wound, its extraction should be deferred until it forms an evident prominence at some point, which may then be opened and the forceps applied.

3. *Of the Extraction of foreign bodies which present some portions Externally.*—If the blade of a knife or sword be buried in the flesh, and the handle projects, this serves as the best instrument for drawing it forth. If the blade be broken and cannot be withdrawn with the fingers, it must be laid hold of with

strong pincers: it may be necessary to place the foot against the part where the weapon is buried, in order to enable us to employ strong tractile exertions. When a blade is broken level with a bone, and projects into a cavity, as the mouth or chest, the finger, guarded by a metallic thimble, may be introduced into the cavity, and the blade propelled from within outwards. This proceeding is only to be adopted with regard to the chest, when the wound is a penetrating one. If the blade offers no prominence externally nor internally, but produces serious inconvenience, the trephine may be used to discover it; but if no serious symptoms are present, it may be left until inflammation and suppuration have softened the tissues, and given some looseness to the foreign body.

4. *Of Wounds with loss of Substance.*—The operations for the relief of the consequences of these wounds, are detailed in the next chapter.

—o—

Foreign Medicine.

Irrregular Exanthematous Affection. By Dr. Bedor.

IN the summer of 1835, the atmosphere at Troyes was for several weeks very dry and very hot. Various exanthematous affections appeared among the children; and two cases of measles had recently occurred at Collot's boarding-school, when, on the 16th of July, a scholar ten years of age, went out for the day. On his return in the evening he was taken with a pain in the stomach, with repeated vomiting; and stated that his bowels had been frequently acted on during the afternoon, without his having committed any excess in eating. Some water holding sugar in solution was given him during the night, which was passed with agitation, and with the discharge of several loose and frothy stools, and much fetid gas. Next morning his countenance was depressed; eyes dull, but not red or watery; pain in the head; breath fetid; thirst moderate; want of appetite; tongue covered with a white coating; fauces red and hot; pulse slightly accelerated; no pain in the chest, or difficulty in breathing. Some degree of tenderness on pressure in the epigastric and hypogastric regions. Rest and abstinence were prescribed; decoction of dog-grass with mucilage; *eau sucrée, ad libitum*, and a gargle of barley water and mel rose. Two brown semi-liquid stools were passed during

the day. Some sleep, but of an agitated kind, was obtained at night.

On the 18th, he was rather better. The abdominal uneasiness disappeared, and there was observed on the skin an eruption of little punctuated spots, of a pale red colour. These increased in number, and in depth of colour, at night—the spots extending like a layer of currant juice. Contrary to what is generally observed, this eruption, which resembled scarlatina, shewed itself first in the lower extremities, then in the abdomen and loins, whence it extended over the breast and neck, and more feebly than elsewhere, over the face. The red colour was general in the evening, and the pain of the head became severe, while that of the throat persisted. Three grains of calomel were given, and sinapisms applied to the feet. An amelioration took place for a while, but was succeeded after a few days by a violent exacerbation. The eruption was not well sustained, and here and there on the skin was a furfuraceous efflorescence. The fever was greater; the head worse than usual; the speech rapid; and the mind wandering. He was now seen in consultation with Dr. Carteron and Dr. Patin, who continued his attendance on the case. Twelve leeches were applied to the occiput; one grain of calomel was given every hour, and an injection, containing an ounce and a half of castor oil and the yolk of an egg in decoction of linseed. Blisters were applied to the legs. The same gargle was continued, with decoction of marsh mallows in addition to the other drinks. The leeches bled well; but neither the injection nor the calomel had acted. The eruption was nearly effaced, having scarcely left any traces.

In the middle of the day the patient was removed to another house, which was accomplished without any fatigue; and the patient, in his lucid intervals, shewed himself satisfied with the change. The calomel was continued, and the blistered surfaces were dressed with beet root. On the 22nd, the eruption was more decided. The pulse was very quick and weak; the gums and lips were covered with sordes; the tongue yellow and dry; the countenance expressed only a stupor; and the general appearance denoted a very bad form of adynamic ty-

phus. A semi-fluid brown evacuation had been passed, containing a living worm. The room was sprinkled with a solution of chloride of lime. Next day the symptoms had increased in severity. There was a furfureous efflorescence on the skin, which was dry and burning. The patient, however, could lie on any side on which he might be placed. A hair pencil, dipped in fresh water sweetened and acidulated, was applied frequently to the inside of the mouth. It loosened and brought away by intervals some fragments of the sordes and thick mucosities which, without ceasing, accumulated there. Gangrene attacked the blistered surfaces, especially that of the left leg. Blisters appeared on the great trochanter of the right side, and towards the corresponding buttock. Pieces of ice were placed in the mouth, and received with avidity by the patient, who also took several mouthfuls of veal broth and wine and water. Plaster was applied to the right trochanter.

On the 25th, a thick crust, like the eschar of a deep burn, was taken from the mouth, drawing after it threadly mucous filaments. The extraction of the latter caused much anxiety to the little patient, but was followed by a marked improvement in his general state. Epistaxis to the amount of three or four ounces took place next day. On the 27th, the general depression and emaciation were extreme. The abdomen, which was wasted to a frightful degree, was without pain on pressure. The stools were rare, but tolerably natural. They were solicited by occasional enemata.

A hard tumour, of the size of an egg, appeared on the right side of the neck. It appeared to us to denote a critical deposition in that part. We might, I believe, attribute to it the character of what is called a complete and fortunate crisis; or, in other words, one of those sudden pathological phenomena which are sometimes observed to decide the death or the recovery of the patient, and which put an immediate stop to the struggle between the powers of nature and the destructive efforts of the disease. A very marked degree of deafness, and a purulent discharge from the ears, were observed at the same time. The auditory canals were cleansed by injections, and potato starch was added to the veal broth. The

blistered surfaces were very painful at every dressing. Opiate cerate was applied, covered with poultices.

Another cutaneous eruption appeared on the 28th. It presented the aspect and followed the course of a regular, abundant, and well-marked attack of measles. The pulmonary affection, more or less distinct, which generally appears essentially united to both scarlatina and the measles, never appeared in our young patient. The latter eruption appeared first in the inferior parts of the body, and for two days continued to spread from below upwards. On the 31st, desquamation took place; and the general state became better. Some light broths were well borne by the patient's stomach; and during the four first days of August, a diet progressively rendered more substantial, was equally well received by the digestive powers. The continual employment of the patient was to detach from the skin many portions of the epidermis, in broad leaves, several inches long. He was immersed in baths rendered gelatinous by the addition of a pound of white glue; by which his rough and parchment-like skin was softened.

The tumour in the neck verged sometimes toward suppuration, and sometimes toward resolution. The parents wished for the latter, in order to avoid a scar. A plaster of three drachms of Napolitain ointment was applied to it. At first it produced an erysipelatous redness over the side of the neck; but afterwards a very considerable reduction of the tumour. The deafness disappeared; the otorrhœa nearly so; the strength increased day by day; and the functions all assumed a satisfactory state. Thus the disease at length gave place to a convalescence which, at first uncertain and vacillating, quickly advanced towards a complete restoration to health. The following appear to me the principal conclusions to be drawn from this case.

1. Our young patient was endowed with a high degree of that inestimable vital resistance, which, Dr. Recamier has well said, is not to be measured by the apparent strength of the patient.

2. Judging from his recovery from an attack of croup, which he had when two years old, and the remarkable critical phenomena attending the typhoid exanthema-

tous fever, the diseases of this child tend more than those of many others to a salutary crisis.

3. Without wholly excluding others, affections of the nervous system, and those of the brain, are those which his constitution most dispose him to contract.

I believe it is generally admitted (as was lately observed by Professor Chomel in his Clinique) that the desquamation of the epidermis is furfuraceous in measles, and flaky in scarlatina. We have seen, however, in the present instance, that an eruption more like scarlatina than measles first appeared, and was succeeded by the latter. As a confirmation of this, a female attendant, after sitting up with him, was attacked with measles in a regular and benign form, disappearing in a few days. Nevertheless, the desquamation in our patient was by large flakes, as in scarlatina, instead of in a furfuraceous form, as is usual in measles. We also observed that the eruptions spread from below upwards; differing in this respect from the course which these cases generally follow.

In the article *Scarlatina*, in the 14th volume of the *Dictionnaire de Medecine et de Chirurgie Pratiques* (which has just appeared), it is stated that malignant scarlatina, (under which head the present case may be classed), is rare in Paris, both in private practice and in the hospitals. I intended to consult the articles *Roseola* and *Rubeola* in the same work; but though announced on the cover, they have (from some unaccountable inadvertence) been omitted in the body of the work.

It may be as well to mention here, that a younger boarder in the same school was attacked at the same time as the preceding, with a typhoid exanthematous eruption, not less irregular in its progress than that which has been just described. The principal feature in his treatment (which was conducted by Drs. Delaine and Calletot) was a general bleeding—the plan which M. Dewar recommends for scarlatina*. This other young patient also recovered perfectly.

What ought we to conclude from so striking a series of irregularities in the progress of cutaneous affections? In my opinion they confirm the observation of Professor

Broussais, that we must not trust in practice to the groups of symptoms comprised in a table, or to descriptions framed to comprehend all cases*.—*Gazette Medicale*.

—o—

Reviews.

A Practical Treatise on Midwifery, containing the result of sixteen thousand six hundred and fifty-four births, occurring in the Dublin Lying-in Hospital, during a period of seven years, commencing November, 1826. By Robert Collins, M. D. late Master of the Institution. 8vo. pp. 526. London: Longman and Co. 1835.

THIS work is a clinical report during a period of seven years, of one of the largest obstetric institutions in the world—the Dublin Lying-in Hospital. This institution was founded in 1758, about 77 years ago, by Dr. Bartholomew Moss, and has afforded relief to 131,172 poor women, an average of more than 1703 a year; but the annual admissions at present are over 2000. The chief physician is elected by a few voters, and holds his appointment for seven years, and has two assistant physicians. There is not a grosser job in the medical offices in the United Kingdom, than the appointment of Physician in Chief or Master, as he is termed, of this Hospital. The individual is invariably elected by family interest or intrigue; incompetent persons get appointed, and up to this hour, none of them was ever able to publish even so imperfect a volume as the present. The election is a farce played for the purpose of excluding talent. The best proof we can give of the evil results of it, is simply this, that Masters were appointed who did not possess the slightest claim to preferment, while the most competent have been repeatedly, or rather invariably, excluded—witness the exclusion of Dr. Montgomery and others†. We might dilate upon this topic, but we refrain from further comment, as a better order of things will be

* In translating this case, we have curtailed it very considerably, and pruned it of all its ridiculous pomposities. We hope our young friend, Dr. Bedor, (for this is evidently his first attempt), will give us next time a shorter case and more in it.

† See evidence before the Parliamentary Committee on Medical Education and Practice, in Great Britain and Ireland, 1834.

speedily established by the Medical Reform Bill.

Our author informs us in his title page, of the great number of births which took place during his Mastership; so that the casual reader will suppose that he superintended each of them, which could not be fact, nor does he assert it. We therefore think it was not the best taste to include this item in the title page. We are informed in the preface, that the author has resided in the hospital as an assistant and master for ten years, during which period, 24,119 deliveries occurred, the results of which, he almost in every instance witnessed, "being thus afforded ample opportunity of acquiring information. During the last seven years of his residence, 16,414 women gave birth to 16,654 infants." The author must, according to this statement, be most indefatigable, and have attended night and day during the above period. He apologises for the concise manner in which he has narrated the cases (and this was certainly necessary), but he preferred the simple truth, which "when unadorned is adorned the most." He has introduced several tables, which required great labour, and which afford a vast fund of practical information. These will be read with interest and advantage by every practical obstetrician. He arranges the work as follows:—

1. Natural, tedious, and difficult labours;
2. Preternatural labours;
3. Complex labours;
4. General observations on patients who died in the hospital, shewing the causes and proportions of deaths;
5. Puerperal fever;
6. Observations on still-born infants;
7. Observations on infants who died in the hospital;
8. Registry of the mortality in the early periods of infancy.

We shall select the most important facts in this work, as the observations of the author are, in general, in strict accordance with those of the highest authorities, but in some cases, as on the use of the forceps, totally at variance with them. In 16,414 deliveries, the forceps was applied 24 times, and the lever 3 times—total 27; making the average about 1 in 608 parturitions. According to this calculation, most obstetricians in private practice would require to use these instruments very seldom; and supposing, says our author, an individual to attend 4000 labours, in the course of his

life, which is a greater number than falls to the lot of most practitioners, the forceps or lever would be necessary in little more than *six cases*! Our author hazards this opinion, though he has given a table which shews the proportion of cases in which the most eminent obstetricians of the present period use this instrument; and it appears that some of them had employed it so often as 1 in every 3, 9, 12, 13, 15, 23, 31, 35, 36, 96, 98, 114, 158, 162, and 183 cases. Dr. Collins applied it in 1 in 114 cases, according to his own shewing in this table, although he concludes that in private practice the proportion ought to be 1 in 666½ cases. Now, why did he use it so often, if it be so seldom necessary as just mentioned? He surely does not mean to state, that cases requiring the use of instruments are not as frequent in private as in hospital practice. He does not state whether he used the forceps in 1 in 114 private cases, but he does state that he employed it only in 1 in 608 in his hospital practice.

Our author, however, entertains the most singular opinions on the use of instruments, which according to the best obstetric works, and to our researches and observations, we think are solely belonging to himself. His language is often vague and unmeaning, as we shall presently shew; and some of his conclusions are at variance with obstetric science, or the practice based on it.

Thus, after strongly advising the necessity of a consultation before obstetric operations, which every professor and lecturer strongly recommend, though he gives the whole credit to Dr. Labatt, and after stating that the ear must be felt before the application of the forceps—we presume the short one—he proceeds thus:—

"I have no hesitation in asserting, that to use it (the forceps) under other circumstances, is not only an abuse of the instrument, but most hazardous to the patient. It is from being thoroughly convinced of these facts by long and extensive observation, that I consider the forceps quite inapplicable where the head becomes fixed in the pelvis, (query, in the brim, cavity, or outlet?) and that the ear cannot be reached by the finger, except by violence, in consequence of disproportion existing between the head and pelvis, either owing to the former being unusually large, or the latter under size; in most instances measuring little more than three inches from pubes to sacrum (query, at brim, cavity, or outlet?), and in others less

than this. * When we consider that the blades of the *smallest* forceps used in Britain, even when completely closed, measure from $3\frac{1}{2}$ inches, to $3\frac{3}{4}$, it is clear, that were the bones of the pelvis denuded of their soft parts, there would not be space to admit of their application. The French forceps measures, when closed, on the upper side, $2\frac{1}{2}$ inches, and are about one-eighth wider on the opposite side, meeting at the points of the blades, to within one-eighth of an inch. Were we even to overlook altogether the safety of the mother, when the child's head measures $13\frac{1}{2}$, $14\frac{1}{2}$, or 15 inches in circumference, and is so compressed, as it must be, when the instrument is closed, there can be scarcely a hope of life. Of course where the pelvis is roomy, this compression of the head, so as to close the forceps, is unnecessary, and in such cases, the child is uninjured. How is it possible with the forceps to drag (*to drag!*) a child through a pelvis, where there is not space, except by *force*, to introduce (as is commonly said) a straw, or where the smallest flexible catheter cannot, in some instances, be passed into the bladder?"

What the author really means by the head being fixed in the pelvis, we cannot divine whether in the oblique, antero-posterior or bis-iliac diameters of the brim, or in the cavity or at the outlet. The head may be impacted or fixed, or arrested in its progress in every one of these positions, but to which the author refers, he leaves his readers to guess. This vague kind of writing has been long excluded from really scientific works, and most properly so, as will appear by a few remarks on the example before us. Every well educated obstetrician knows, that the infantile head may be fixed or arrested in the brim, cavity, or outlet of the maternal pelvis; and that different instruments will be required in different cases; the long forceps, lever, perforator, &c., or the short forceps and lever, &c., each of which is only applicable in particular positions of the head in the different parts of the pelvis. The subsequent part of the quotation evidently refers to disproportion between the pelvis and head, and our author concludes, as every other obstetric writer has done, that when a straw or a needle cannot be passed between the head and pelvis, the forceps is inapplicable, and craniotomy is necessary. In such cases, we feel convinced that no practitioner, but a grossly ignorant and uneducated one (and there are a vast number of such among us), would attempt to introduce the forceps, and "drag" a child through

the pelvis under such circumstances. That word *drag* has made us shudder, and reminded us of the horrible and barbarous proceedings of obstetric practitioners of the dark ages; but we do not, nor cannot believe it applicable to the practice of modern obstetricians, and much less appropriate in a Practical Treatise on Midwifery. The author ought not to have used it, and remembered the obstetric axiom—*arte non vi*.

But we beg to inquire, does it follow from the most extreme case of impacted head caused by disproportion between that part and a small pelvis, that the forceps ought not to be employed in the thousands of other instances in which there is plenty of room to apply it; and that the woman ought to be left in labour, as some were in the Dublin Lying-in Hospital, from 24 to 90 hours? The answer must be negative, according to the best obstetric writers and practitioners in existence. The table we have given attests, beyond all doubt, the correctness of this opinion.

It is to be regretted that the author did not carefully peruse some of our standard works on the use of the forceps and other instruments, before he arrived at such sweeping and untenable conclusions. It is very remarkable that all the masters of the Dublin Lying-in Hospital, for some twenty years past, have belonged to the old school of time and patience, left all to nature for 40, 60, or 90 hours, and seemed dreadfully alarmed about using the forceps. The few papers they have published—even those of Dr. Clark, Dr. Labatt, Dr. Pentland, and our author—afford too much evidence of the truth of our position. These, and many of their assistant physicians, appear to dread the use of the forceps as much as gastro-hysterotomy. In this part of the kingdom, few feel such dread, and the majority of scientific, and, consequently, judicious practitioners, do not allow the head to become impacted or arrested, or leave it so, trusting to the exhausted powers of nature for two, three, or four days; and, moreover, they have no more fear about using the forceps than feeling the pulse; and the results of their practice are as successful as in any part of the world, and much more so than in many parts. The observations of Dr. Burns are so instructive and valuable in practice, on the use of the forceps in arrest of the head, that we shall quote them fully, as we entirely agree with them, and as they

overthrow our author's conclusions. After descanting on impacted head, and advising perforation, he proceeds as follows :—

"There is another case of protracted labour requiring instrumental aid, when the head is not impacted; the pelvis may even be of ample size. It is much more frequent in its occurrence, and is known under the name of the case of arrest, or by the French writers *la tête arrêtée au passage*. The head is not fixed or jammed, the finger can more readily be passed round it, the scalp may be swelled, but it is to a less degree and firmer. The bones are nearer the perinæum, and are never so squeezed or misplaced, and the retardation appears to arise rather from the nature of the pains, or the unyielding state of the soft parts at the outlet of the pelvis, than from any great obstruction offered by the pelvis to the delivery; but I have already noticed, that a very small obstacle often decidedly impairs the actual force of the uterus: though, perhaps, not the degree of pain. Further, the head descends lower than in a case of impaction. The ear is more easily felt, not only from there being more room for the finger, but also from being farther down. It can be felt by introducing two fingers; whereas, in greater contraction, the hand sometimes must be introduced into the vagina to feel the ear fully. It is a mere case of tedious labour, but a case protracted to the utmost limits of prudence, in spite of the employment of those means which have been pointed out in the last chapter. It may arise from some slight disproportion between the size of the head and the capacity of the pelvis, or more frequently from variations and irregularities of the uterine action, which have already been fully considered, and it is much more frequent in its occurrence than the locked head. The case of impaction is clearly marked by the symptoms formerly detailed: that of arrest is ascertained by the simple condition of the head being stationary, but not jammed in the pelvis. There are many cases, then, of arrest, which are safely terminated by nature, and which are placed under the class of tedious labour; but there are many others, where it becomes prudent to accelerate delivery by artificial force, and the question for deliberation is, at what period we shall thus interfere, or, when further delay is hazardous?

"I have fully, and I hope practically, detailed and considered the causes which render labour tedious, and have pointed out the impropriety of permitting the first stage to be protracted, for thereby the uterus becomes enfeebled, and less able to accomplish the second. But when this advice has not been acted on, or when the treatment proper for the particular cases already described, has not been successful in effecting delivery, what is the consequence ultimately of delay? The uterus, by continued, but inefficient action, or unavailing contraction, becomes gradually debilitated; and when at last delivery is ef-

fected, it cannot contract with vigour and regularity, whereby hæmorrhage is occasioned, or the same event is produced by spasmodic action of the uterus. Here, then, is one very serious evil which may be anticipated. Next, there is a strong disposition given to puerperal disease, not merely to those troublesome, though less dangerous complaints, known under the name of weeds, or irregular febrile paroxysms; but also to more formidable affections, of an inflammatory nature, especially of the womb or peritonæum. Accordingly, we find that a much larger proportion of women die after protracted, than after natural labour. Here, then, is another class of evils to be apprehended. Again, although the same local mischief is not so apt to take place, that we meet with in locked head, yet the patient is not exempted from risk even of that; by continuation of labour, the soft parts at last inflame and swell, which adds not only to the difficulty of delivery, but also greatly to the danger of the case. If it be necessary to enumerate other hazards, I may set down the consequence of protracted irritation and exertion, marked by the induction of a state of fever, and at last of great exhaustion, inasmuch that the patient may actually die undelivered, but this event, as well as rupture of the uterus, is less apt to occur than in locked head. Besides all these hazards to the mother, the child is in danger of perishing, not from compression of the brain, but from the continued pressure of the uterus, after the evacuation of the water, interfering with the regular performance of the function of circulation. These are surely no trivial evils resulting from protracted labour; and the utmost that I feel at liberty to concede in favour of delay, is, that it may be permitted longer in cases of arrest, than of impaction. Many eminent men have placed an undue confidence in the power of nature, and have been hostile to the use of instruments. For a long time I was influenced by the high authority and plausible arguments, as well as bold assertions of these practitioners, but experience has compelled me to adopt the opinion, I am now, with a firm and solemn belief of its correctness and importance to maintain in this chapter. From the strength of the recommendations of the partizans of nature, we should suppose, that whenever the child could actually be born without aid, no hazard occurred, and, on the other hand, that instruments must of necessity prove not only very painful in their application, but dangerous in their effects. Now, the first supposition is notoriously wrong, for innumerable instances are met with, where the mother does bear her child, without artificial aid, and much, doubtless, to the temporary exultation of the practitioner, but, nevertheless, death takes place, or, at the best, a tedious and bad recovery is the consequence. The second supposition is just as positively untrue; for in the majority of cases, if the practitioner

be humane and gentle, the introduction of the instrument gives little or no pain; in so much so, that in many books we meet with strong and just reprehension of the clandestine, and unnecessary use of instruments, which could never possibly take place, if their application were attended in such cases with much pain. Then, as to the pain occasioned by extraction, that may be greater than the patient was just before suffering; and yet not be greater than is often experienced in a natural labour; or even granting it to be uniformly greater, a concession I make for the sake of argument, it is but for a short time, and, on the whole, the suffering of the patient is less than if nature had been allowed at length to expel the child. These positions are perfectly correct in all cases of arrest, when the practitioner is well instructed and cautious. Next, as to the danger to be apprehended, I cannot in cases of arrest see any source whence it can arise. The mere introduction of the forceps, if gently accomplished, can scarcely be more hazardous than the introduction of the finger, for no force is, or ought to be exerted. If there be hazard, it must be in the process of extraction, and this, it is evident, can arise only, either from the pressure of the instrument on the soft parts, or from the head and instrument lacerating the perinæum. The last event must, in general, be the consequence of want of caution, and the first can never be carried to any dangerous degree in a case of arrest, if the operator know how to direct his efforts.

"In such cases, then, we may experience much evil, from trusting too long to nature, but add little to the sufferings of the patient, and nothing to her hazard by instrumental aid. When, however, we turn our attention to the cases of impaction, the matter is different. There is greater difficulty in introducing and fixing accurately the instrument, and doubtless more pain even in this stage is given than in cases of arrest. When again we come to act with it, the suffering or pain must be increased, even in the hands of a gentle operator, in proportion to the resistance to be overcome. The soft parts have already been pressed on, during labour by the head, they must still be pressed to a greater degree; and even if the maxim, that time is equivalent to force, were acted on to a certain extent, it would be in vain to deny that there must be both greater suffering and greater danger than in natural labour, or than in cases of arrest. These sufferings, and this danger, must be in a certain degree proportioned to the tenderness which has already taken place in the soft parts, and therefore may be greatly lessened, but cannot be increased, by an early application. Their production depends on the obstacle afforded. When the head has arrived at a station rendering the application of the short forceps practicable, no good can arise from delay; we only add unprofitably to the suffering in the meantime, or lay the founda-

tion of a state, which is to render the later application of the instrument more painful and more hazardous. When mischief arises from the application of the forceps, it always is owing either to harsh and unskilful conduct, or to the state induced by delaying their use too long. If it require strong efforts to extract the child, could that child ever have been born by the power of nature, or could the uterus and abdominal muscles, after long action, retain vigour sufficient to exert a force equal to that which is often required to extract an impacted head? Indeed, our best writers, however fond they may have been of delay in cases of arrest, are disposed to deliver whenever the head has been locked. Nothing can be expected from delay except sloughing, and the alternative of speedy death, or a miserable existence; and in all cases of decided impaction, the question, I apprehend, is not whether we shall immediately deliver, but whether we may succeed with the forceps, or shall be obliged to use the crotchet.

"Holding the opinion I have been laying down, it is not without astonishment and regret, that I find Dr. Osborn stating, that in a case requiring the use of the forceps, 'all the powers of life are exhausted, all capacity for farther exertion is at an end, and the mind as much depressed as the body, they would at length sink together, under the influence of such continued but unavailing struggles, unless rescued from it by means of art.' If such a state be allowed to take place, even in a case of arrest, but more especially of impaction, it is much to be dreaded that the interference of art shall prove as unavailing as the struggles of nature. Were this the opinion only of Dr. Osborn, I should pass it in silence; but unfortunately it is the prevailing doctrine of the day; and the modern disciples of the school of patience, men of talent and observation, carry their fears of the mischief resulting from the use of the forceps, to an extravagant length, and place a mistaken confidence in the efficacy and safety of a continued action of the expulsive powers. I have much pleasure, however, in strengthening my opinion with the authority of Dr. Hamilton, the present excellent Professor of Midwifery in Edinburgh, who has long seen the hurtful effect of the temporizing system, and of Dr. Oslander, the active and experienced Professor in Gottingen.

"To place the argument in a yet stronger light, I shall examine the result of delay, as deduced from the tables, published by Dr. Breen, of the cases occurring in the Dublin Hospital, because these are the latest I have beside me, and were published without reference to any particular opinion.

"In the course of 57 years, 78,001 women were delivered, of whom one out of every 92 died, and one child out of every 18 was stillborn. If, however, we were to exclude cases of tedious labour, and attend to the rest of cases of natural labour, or the con-

sequences of a correct and healthy process of parturition, we would find the proportion of deaths to be altogether trifling; I am willing, however, to adopt this average. Let us now see the result of tedious labour.

"In women, who were in labour of their first child from between 30 to 40 hours, one in 34 died, and one child in five was still-born. Here then is a prodigious difference between even the average result of all labour, good and bad, and a protracted labour. During the same period of labour, amongst women who had previously borne children, and therefore, if requiring instruments, might be supposed to have a more permanent obstacle, or contracted pelvis, though this is not stated, about one in every eleven died, and one child in every six was stillborn.

"When labour was protracted between 40 and 50 hours in women who had not previously borne children, one in 13 died, and the proportion of stillborn children was as one in 34.

"If labour were protracted other ten hours, that is between 50 and 60, one-eleventh of the women died, and when we proceed to the period of between 60 and 70 hours, one-eighth died, and nearly one-half of the children. It is observable, however, that only one-twelfth died in the next ten hours, but this variation must arise from accidental circumstances.

"It is impossible to give any comparison of these results, with those afforded in the same hospital by the use of instruments; for artificial aid, it is evident, was always long delayed, unless in cases where dangerous symptoms not essential to labour occurred. Instruments were used, on account of tedious labour, in 11 cases, and of these 18 died.

"Now, taking the proportion of deaths in the parturient state to be, including all disasters whatever, as 1 in 92, it is most important to observe the progressive fatality arising from delay. Suffering above 30 hours destroys 1 in 34; in other 10 hours the danger more than doubles, for 1 in 13 die; then 1 in 11, and next 1 in 8, to say nothing of the children."

It appears by Dr. Collins, that mortality is very much diminished of late in the Dublin Hospital, and it affords us much satisfaction to place his statements before our readers.

"Thus, of the 15,850 cases noted, 15,084 were delivered within *twelve hours* from the commencement of labour; 15,586 within *twenty-four*; 15,671 within *thirty*; and 15,720 within *thirty-six* hours; leaving 130 above that period.

"Of the 16,414 women delivered, 4969 were *first* pregnancies; of which 72 were twin births. These 16,414 women gave birth to 16,654 children, including twins.

"In *seventy-nine* of the 16,654, delivery was effected by lessening the head, (on account of extreme difficulty in the labour, or where the child was dead and interference desirable, owing to the state of the mother), when,

after the most patient trial, the impracticability of the labour being terminated in safety by any other means, was clearly proved to us. In *six* of the 79, delivery with the forceps was attempted; but no force consistent with safety could, in this way, accomplish it. *Fifteen* of the 79 women delivered by the crotchet in difficult labour, died. See article on still-born children, where the particulars of twelve are recorded, viz.:—Nos. 173, 210, 257, 303, 504, 665, 686, 745, 817, 873, 1038, 1095. *Seven* of the twelve died from the following causes:—No. 173 from stricture of the intestine, with effusion into the thorax. No. 210 from the effects of abdominal inflammation *previous* to labour. Nos. 257, 303, 504, from the effects of labour *previous* to admission. No. 665 from puerperal fever, which at the time was prevalent in the hospital. No. 745 was admitted labouring under typhus fever. The *five* remaining cases died from the effects of inflammation and hæmorrhage, or injury produced by pressure. *Two* of the five suffered from hæmorrhage: one *previous* to the delivery of the placenta, and the other subsequent to its expulsion. In both, it was necessary to *pass the hand into the uterus*. One of the two had been force-delivered with a former child, and all her children were still-born. These circumstances added considerably to the bad effects arising from the difficulty experienced in the present labour, and must have contributed much to the fatal termination,

"The number of infants born was 16,654, of whom 284 died *previous* to the mother leaving the hospital, being a proportion of 1 in 58½, which is a very small mortality.—Of 16,414 women, 164 died, or about 1 in 100. and death was caused in some by accidental diseases."

We have now given a specimen of the merits and demerits of the production before us, and must leave our readers to consult the original work on other points in it. It is, in our opinion a good statistical account of the Dublin Lying-in Hospital for ten years, and one that will be referred to by subsequent writers on obstetrics. Although we do not agree with the author on many points, we consider him a safe, experienced, and judicious obstetrician.

—

The British Medical Almanack for 1836.

THIS is really a most useful and meritorious little work, and has undergone great improvements since its first edition. It concentrates much important information from sources which are not easily accessible. The Chronological History of Medicine, which is very judiciously condensed from Hecker. is too good; we mean to say, it is a shame that a set of lazy sinners, who never read a

dozen books in their lives, should have the result of so much laborious reading compressed into a few pages for them.

The Supplement to the Medical Almanack contains Dr. Grant's Classification of the Animal Kingdom; the Characteristics of the different Races of Mankind; several ingeniously constructed tables relating to medical statistics; French and English Weights; a Formulary of New Medicines; an Epitome of Auscultation and the Physical Signs of Thoracic Diseases; Antidotes of Poisons, &c.

In short, this well conceived, and neatly executed work, offers in a small compass and at the moderate price of two shillings, every thing that can assist the memory of the practitioner on subjects where it is most likely to be occasionally at fault.

We recommend every medical man in England to possess himself of the book, and we heartily wish the author all the success he deserves.

—o—

The London Medical

AND

Surgical Journal.

Saturday, December 26th, 1835.

—

THE METROPOLITAN UNIVERSITY.

WE have received a very argumentative and judicious letter, addressed by Dr. Epps to the Right Hon. T. Spring Rice, on the subject of the intended Metropolitan University; in which he very clearly exposes the injurious effects of conferring a monopoly on two of the many medical schools in this metropolis, namely, the London University and King's College. It could scarcely be supposed that a government which has done so much in destroying corporate monopolies of all kinds, would propose a new one; but nevertheless—we grieve to indite it—we need scarcely observe that the fact is so. On a former occasion, the Privy Council refused to grant the power of conferring medical degrees to the London University, as it would be to the manifest injury of all the other medical schools in this metropolis; but now the same government which com-

posed a great portion of that council, allows itself to be influenced by the proprietary of the above-mentioned institutions, in establishing a London University on the basis of the grossest monopoly, for the benefit of the same joint-stock companies. It is quite certain, however, in our opinion, that neither branch of the legislature will ever sanction or support a new university on such narrow and unjust principles. It is astonishing that a government which has done so much for the diffusion of education, could for a moment entertain the idea of closing all the medical schools in the United Kingdom, except the chartered ones; as if instruction were not as good in all the unchartered as in the favoured pair. But neither the public nor the legislature will ever tolerate such injustice; and more especially as the would-be excluded schools, have also their friends in the Houses of Lords and Commons.

This left-handed policy must have been suggested principally by the opposed shareholders of the London University and King's College—the political Peachums and Lockets, who to serve each other, have no objection to plunder their formidable rivals in the other medical schools, and to fill their coffers by emptying those of opponents, who have by fair competition in the republic of science, justly obtained an adequate reward for the exertion of their talents, and seriously injured, if not almost ruined one of these institutions. We are very much disposed to believe that the old medical corporations have tampered with the government on the subject under consideration. They have discovered rather late, that the medical schools of Great Britain and Ireland are by far too numerous, and ought to be reduced, if practicable or possible. It was a matter of course, that the opinions of the Colleges of Physicians and Surgeons, and of the Society of Apothecaries were obtained,

though each of these bodies had its own interests to advance; and these being opposed to those of the Professors and Lecturers, it is not difficult to divine the kind of opinion which the framers of the New University would receive from such quarters. There is no doubt, however, but the different medical schools in this country will petition Parliament against the intended monopoly, which will, shall, and must be blown into thin air; and that the new Metropolitan University will be founded on an equitable basis, and worthy of the age in which we live.

We also feel assured that Mr. Warburton, who has evinced so much interest, zeal, and philanthropy in medical matters, and who is so well qualified to advise the Government on the subject, will never consent to the establishment of a new monopoly in medicine, as no one is so well able to judge of the imperfections of the present system, which were so clearly and forcibly expounded before him.

It is likewise to be borne in mind, that as Chairman of the late Parliamentary Committee to inquire into the present state of Medical Education and Practice in this country, he has a duty to perform to one branch, and by far the most powerful one, of our legislature, as well as to the public; and that whoever may be ministers, or form the Government, the present House of Commons will and must obey public opinion. That House is in favour of wise and liberal measures, and no ministry, whether Whig, Tory, or Radical, can henceforth carry measures in opposition to reason and justice. It appears to us, therefore, from the preceding statements, that the old adage is incontrovertible—*vox populi, vox Dei*; and that the attempted bubble of a new monopoly will explode and end in smoke—so far as it favours two medical schools founded by a tribe of traders under the disguise of joint-stock proprietors. No, no. Science belongs not

to joint-stock companies, or to certain countries, it is open to all men:—*patens omnibus scientia*.

—o—

INSURANCE OFFICES IN RELATION TO MEDICAL PRACTITIONERS.

We feel pleased to observe that a leading morning journal has admitted some sensible letters from a correspondent, who styles himself Philo-Physicus, on the presentsystem pursued by Insurance Companies, of requiring certificates gratuitously from all grades of medical practitioners; as we were the first to direct attention to the subject.

Were the public press to admit articles of this kind more frequently, it would confer most signal benefits on the public, as well as on the medical profession. It has, however, of late lent its powerful aid to the profession, and will continue to do so, because the more it reports those cases of civil and legal proceedings, in which medical evidence is given, the more it will advance the interests of society.

It is to be recollected that medical evidence is conclusive in a vast number of civil, criminal, and other proceedings, in the different courts of justice, from the highest to the lowest. It affects life, liberty, property, and reputation in every class of society; and the more it is brought before the world, the more cautious and correct will it be.

The custom adopted by Insurance Companies, of requesting medical certificates gratuitously, concerning individuals who may be about to assure their lives, is most unreasonable and unjust. It is difficult to perceive on what grounds any class of society can expect to occupy the time of a medical practitioner, for an hour or two, without adequate remuneration. In the present case, the whole history of a man's life, his former diseases, hereditary predisposition, his temperament, habit, all functions, must be most carefully examined, as well as his present state of health, before a proper certificate can be given:

in fact, much more time is expended, than in a consultation, for which a double *honorarium* is always presented. It is obvious to all, that the Insurance Company is the most interested party in the affair, infinitely more than the person about to assure his life, or than his medical attendant; and the Company ought therefore, in justice, pay for the advantage it solicits gratuitously. If the patient feed his medical adviser, he might sometimes expect, for value received, a favourable certificate, when an unfavourable one would be given. But legally qualified physicians and surgeons are sworn to act honourably and justly in the discharge of their professional duties, and will not violate their oath, to please either patient, or an Insurance Company. Paid or unpaid, as witnesses, they must testify the truth; but they are not bound by any law or custom, to give their evidence, and lose their time, to the injury of their families, to affluent persons, without proper remuneration.

We think the profession deeply indebted to the *Times*, for inserting the letters of Philo-Physicus, and we hope that the subject to which we have alluded, as well as many other medical ones, will be frequently submitted to the public through the medium of the newspapers. It is but justice, however, to the public press in general to state, that it is equally favourable to the interests of medical practitioners, the protection of which must, in all cases, be beneficial to the public.

A few years ago, medical matters were wholly excluded from the newspapers; until questions on contagion, quarantine, &c., were at length deemed worthy of notice. In a well conducted metropolitan newspaper there is a corner for all classes of society, except the medical; though the latter is a numerous, respectable, and most influential one, and may benefit a daily publication, as much, if not more so, than many others.

WESTMINSTER MEDICAL SOCIETY.

Saturday, Dec. 19, 1835.

DR. ADDISON, PRESIDENT.

Interesting Case in which Fibrinous Concretions were found in the Heart—Use of Iodine and its Compounds in Secondary Syphilis, Gôitre, Ovarian Dropsy, and Hydrocele.

MR. WADE related an interesting case, in which fibrinous concretions were found in the heart: it was the case of a young woman, whose body he had just examined, at the request of her medical attendant. Mr. W. did not see the patient during life, but heard the following particulars from the gentleman who attended her, and her friends. She was twenty-four years of age, and had been ill for nine months previous to her death; the origin of her disease appeared to have been an inflammation in the chest, which was removed by the usual remedies; but dyspnoea remained, more or less, until the period of her decease, attended with cough and expectoration of a muco-purulent character. She suffered latterly under distressing palpitations, and any exertion was attended with great difficulty of breathing. On the morning of the day on which she died, she ate her breakfast as usual: she was suddenly taken giddy and faint, with great fluttering at the region of the heart. She appeared to refer all her sufferings to the cardiac region, where her hand was constantly placed; and the lips were blue. From this last symptom, and the embarrassment of the respiratory organs, her medical attendant considered she was labouring under congestion of the lungs, and immediately bled her to about twelve ounces. She, however, became gradually fainter and fainter, and died at 7 P. M.

The *post-mortem examination* was made twenty-four hours after death. On the *left side* there was complete adhesion of the pleura costalis to the pleura pulmonalis, the lung on that side was much consolidated, presenting appearances of hepatization: in the lower part of the organ there was a small cavity about the size of a nut, filled with muco-purulent matter, slightly tinged with blood.

There was no adhesion of the pleura on the *right side*, and the lung was tolerably healthy, being crepitant throughout. The heart was small and flabby; an ounce of pale-coloured serum was found in the pericardium; the left ventricle was not more than half its natural size, its cavity being greatly diminished: the right ventricle was very small, both in its cavity and parietes; the latter being not more than an eighth of an inch in thickness in any part; both the auricles were slightly contracted. The right auricle was completely filled by a firm fibrinous concretion, which extended through the auriculo-ventricular opening, into the cavity of the ventricle, completely obstructing the passage of the blood. The concretions adhered very firmly to the tricuspid

valve. No other diseased appearances were observable. Mr. Wade observed that some pathologists consider polypi, or fibrinous concretions, to be *post-mortem* effects, whilst others believed they were formed during life; he, himself, considered there could be no question of the last opinion being the correct one in all cases; for he believed that some degree of motion, with a languid circulation, was necessary to their formation, as they are found in the cavities of the heart, the pulmonary arteries, and the aorta, especially the former; also in the superior longitudinal sinus, where are situated the chordæ Willisei which, no doubt, act mechanically, as do the chordæ tendinosæ, and valves about the heart. These concretions are also observed occasionally in arteries, which have been much obstructed by ossification: it is not uncommon to find these formations adherent to the spicula of bone, and forming a serious obstruction.

Many authors believe these polypi susceptible of organization. Bouillaud, in his "Essay on Obliteration of Veins," mentions two instances of organized polypi: in one example, the right auricle was filled with a fibrinous concretion, traversed in every direction by minute vessels. In the other case, both the auricle and ventricle on the right side contained organized fibro-albuminous matter. The individual subject to the last case died with all the symptoms of ossification of the heart. There are several other cases on record. With regard to himself (Mr. W.), he had in numerous instances examined these concretions most attentively, and had never been able to detect the slightest signs of organization. He asked the experience of the Society with regard to this circumstance.

Use of Iodine.

After a short time, as no member rose, the president said he would take the present opportunity of alluding to a report in which a member of that Society* had fallen into the error of supposing that he (Dr. A.) considered iodine not only useless, but perfectly inert. Now, as he had seen two cases in which death resulted from the use of that medicine, he could not have considered it inert. He had said of iodine, that he was disappointed in the use of it, having found it only partially successful in gôitre, less so in scrofulous affections, and quite useless in tumours occurring in the abdomen. The preparations he spoke of were uncombined iodine and the hydriodate of potass. With regard to the hydriodate of iron, he had found it of great use in open scrofula; but he could hardly name that among the other preparations of iodine, as

iron by itself was so powerful a remedy. He asked Dr. Thomson to favour the Society with the result of his experience in the use of iodine, and its compounds.

Dr. Thomson thought iodine, when uncombined, often gave disappointment, from the fact of its inducing great febrile excitement, and setting up an action different from that which should be produced to remove the disease of obstructed glands; he rarely employed it uncombined. The hydriodate of potass he had employed in various ways, and had very seldom been disappointed in its effects: indeed, he entirely relied on it in secondary syphilis, so invariably successful had been his employment of it in that affection in all its different stages and characters. So much did he depend on it, that if a patient came to him who had had a primary syphilitic affection which had been healed without the use of mercury, and secondary symptoms now presented themselves, he should try it alone, and he believed with success. In treating disease, the use of mercury often required to be some time suspended, in order that an effect might be produced. Iodine possessed this advantage, that when one preparation of it ceased to be effective, another might be substituted with complete advantage, and a saving of time was thus effected.

Mr. Wade inquired whether in those cases of secondary syphilis which Dr. Thomson had treated with iodine, any scrofulous symptoms were present, as he (Mr. W.) generally found such cases the most obstinate. With regard to his own experience in cases of secondary syphilis, he had found the oxymuriate of mercury and the compound decoction of sarsaparilla the most useful remedies. Had those patients Dr. T. treated been previously under a course of mercury?

Dr. Thomson replied, some of them had been under the influence of mercury, which did not succeed in curing them. Out of 12 or 15 cases of secondary syphilis, of all kinds and in all stages, that he had treated in the North London Hospital with the hydriodate of potass, all, with the exception of one person, completely recovered; that solitary failure he attributed to the unsettled character of the patient, rather than to the want of virtue in the medicine, as the man left the hospital before he had fairly tried the effects of the treatment.

Drs. Jewel and Chowne, each mentioned a case in which the use of iodine appeared to be attended with good effect in ovarian dropsy, and which cases led each of these gentlemen to think favourably of the medicine in that disease; but subsequent experience had convinced them of its utter uselessness in such affection.

Mr. Ure had seen cases of hydrocele completely and speedily cured by the following lotion, as recommended by M. Ricord, of Paris:

* We believe the worthy president alluded to a paper, published in a late number of the "Medical Gazette," by Mr. Forbes Winslow, on the use of iodine.—*Reporter to Med. and Surg. Jour.*

R. Tincturæ iodinæ, unam partem;

Aquæ destillatæ, partes sex.

Ft. lotio ter in die usurpandæ.

Absorption rapidly followed this application. With regard to the use of iodine in bronchocele, he believed it only useful in that one of the four species termed "glandular," or simple enlargement of the thyroid gland. In that species he had undoubtedly seen the iodine of great use.

Some further conversation took place between Dr. Thomson and Mr. Bird, as to the most proper and successful way of detecting the presence of iodine in various fluids; after which the Society adjourned to Saturday the 9th of January, 1836.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Clinical Remarks on a Case of Anemia. By Dr. Elliotson.

THIS is a case of anemia, gentlemen, depending on internal circumstances altogether—simply from some internal deficiency. It frequently happens that there is a deficiency of blood found, accompanying deficient menstruation, and the patient becomes pale; the causes of which, I believe, we do not know. The case we have to consider is that of C. H., aged 24, who was admitted on the 24th of November. The report states that her complexion is rather blanched, her lips pale, and she has been subject to head-ach. About four or five weeks ago she felt a severe pain in the chest and head, accompanied with loss of appetite and debility. She has had occasional fainting fits since that time, and has been getting gradually weaker. She took some medicine the first fortnight, but she does not know what it was. Her symptoms on admission were constant pain in the head, referred chiefly to the forehead, which also was tender on pressure, and tinnitus aurium. There was pain in the chest and sternum, which appeared as though something was scraping her, and there was tenderness on that part. She had no cough, but was subject to fainting fits—she fainted yesterday morning. There was no hysterical fits. She had loss of appetite and nausea after taking food, and there was considerable debility; her menstruation was regular but scanty, and attended with pain in the region of the uterus: her bowels were confined; her tongue clean, moist, and pale; pulse 100, small and weak.

Now, these are the ordinary symptoms of anemia. The paleness approaching to a pallid waxiness of the complexion; a pale tongue, and great whiteness in the sclerotic coat of the eye: fainting is generally present; if the patient does not actually faint away, she still feels a degree of faintness. You observe, too, the catamenia, though regular, were scanty. Now, the catamenia

are often quite deficient, or if not they are almost always of a pale colour, last only a short time, and recur at longer intervals than natural—here there was only deficiency in quantity. You observe, too, that this patient had head-ach, a very common symptom where there is a deficient supply of blood, and which is often attended with great throbbing of the temporal arteries and tinnitus aurium: these symptoms occur both when there is a deficiency, and when there has been loss of blood. Hysterical symptoms were also present, as the tenderness on pressure on the forehead and epigastrium, but there was no decided hysteria. Now, hysterical symptoms are common in anemia; there is generally more or less of them present. The pulse, too, is generally quick in this disease, but there is no substance in it, it is thin and weak. In this case I believe there was a bellows sound at the heart, but which fact appears to be omitted in the book. Now, a preternatural sound of the action of the heart is not uncommon in these cases: I observed this first many years since. I was directed to it from generally finding palpitation in chlorosis—and this is, in fact, a case of chlorosis—and it was supposed some disease of the heart was present. You find, in cases of this kind, there is a bellows sound in the region of the left ventricle when the heart strikes against the ribs. Laennec mentions that he has often observed preternatural sounds of the heart after hæmorrhage, when no disease of the organ was present. I have frequently, too, noticed these sounds in anemia—this woman had a preternatural sound at the heart. I do not attempt to explain the cause of that symptom. Now, it is generally said that anemia or chlorosis occurs just at the commencement of menstruation, so that the menses do not appear, or if they do, they are scanty; but that the disease will often occur after menstruation has been established for years: this is a case in point, and is interesting on that account.

Now, fortunately, we have a pretty certain remedy in this complaint—iron, in any of its forms, does a great deal of good. After blood has been lost in any quantity, or where there is a deficient supply of it, and no organic disease is present, iron is certainly the very best remedy. Now, we commenced by giving this patient two drachms of carbon ferri three times a-day, with the house diet; this was on the 24th. On the 27th her appetite was improved, and she was better. On the 28th we increased the dose to three drachms. On the 1st of December she was much better; the colour was returning in her lips and cheeks, and she got up for several hours during the day, though she was so weak on her admission that she was obliged to keep her bed. On the 5th we increased the dose to half an ounce. On the 8th she had pain of the chest only of an evening—the head-ach and

tinnitus aurium were gone. On the 12th she went out quite well, not altogether rosy, but with a good complexion, and she was quite strong.

—
Clinical Remarks on a Case of Medullary Sarcoma. By Mr. Cooper.

GENTLEMEN—I invite your attention this morning to the case of Daniel Sullivan, aged 33, admitted Sept. 30, who has a very large tumour on the neck, extending from the left angle of the jaw nearly to the right, and downwards almost to the sternum. The disease commenced nine months ago, and gradually attained its present size. Some scars may be observed in the neck, left by abscesses, which he formerly had in the West Indies. He has been in the Infantry more than 22 years, has seen a great deal of service, and lived freely. On his admission into the hospital his health was good. The tumour has a peculiar elastic feel at several points, very similar to what would be produced by the presence of a fluid. About a fortnight before this man's admission into the hospital an opening was made in the tumour, but nothing was discharged but bloody serum.

Oct. 3rd. Has had very severe rigors, followed by fever. Pulse 120; tongue furred and dry; great thirst and difficulty of swallowing.

7th. Febrile symptoms have subsided; rests pretty well; pulse 88; appetite good.

12th. The swelling, which during the febrile attack presented an erysipelatous appearance, has now given way at different points, and several ulcerated openings, filled with portions of slough, have formed in the skin.

19th. Allowed milk, beef-tea, and a pint of porter.

22nd. Several large sloughs have separated, but without any material diminution in the size of the tumour: frequently there is bleeding from the ulcerated openings.

Nov. 19th. Tumour now presents much of the character of fungus hæmatoides. The exposed surfaces of the diseased mass are of a whitish colour, and disposed to bleed. In other places the skin is extremely prominent, of a dark purple colour, the swellings lobulated, and when the parts are handled hæmorrhage is sometimes brought on. The man's health has been declining during the last three or four weeks, and he is very much emaciated.

The disease, called *medullary sarcoma*, and, in its ulcerated state, *fungus hæmatoides*, receives the first of these names from its substance being frequently of the consistence similar to that of the medullary substance of the brain, and the latter from its tendency, when ulcerated, to throw out a large bleeding mass. Most commonly it consists of portions of this medullary deposit, contained in fine membranous partitions. Three forms of medullary sarcoma, or of the fu-

men encephaloide, described by Laennec—the *encysted*, another *without any cyst*, but circumscribed, and a third where the medullary deposit is diffused in the tissues affected. It may commence in almost any texture, or upon any surface. A vascular organization is conspicuous in it, and as the coats of the vessels are remarkably delicate, they are apt to give way, and then blood is mixed with the medullary matter itself. Medullary sarcoma differs from scirrhus in containing no dense fibrous septa, and in having no central hard nucleus, being a soft pulpy substance intersected by, or contained in very fine, delicate, almost imperceptible membranes. Medullary sarcoma is very common in young persons and even in children. Scirrhus and cancer, on the other hand, are diseases of more advanced periods of life. Medullary sarcoma is not, however, restricted to young persons, but takes place in others, and this sometimes in combination with scirrhus. In certain instances on record, the removal of a scirrhous tumour has been followed by the growth of a medullary one; and I remember a case of this kind, which Sir Astley Cooper gave me some particulars of, a year or two ago.

Our patient Sullivan presents an example of medullary sarcoma in an external situation, and in the ulcerated state. The exposed parts of the morbid mass occasionally bleed; but the medullary matter does not protrude through the openings in the skin, in the form of a rapidly increasing growth, as is frequently exemplified, and of which you may read some particularly interesting histories in the writings of Abernethy, Hey, and Wardrop. The man, on his first admission into the hospital, was under the care of Mr. Liston, who then had charge of my patients on account of my absence from town, and who decided not to attempt the removal of the tumour, because it seemed to him that its character was malignant, and that an operation would only be accelerating the patient's death. If this opinion were right at that time, the reasons against operating now, are infinitely stronger, because the tumour has extended itself, so as to cover nearly the whole of the neck, and the health has declined in such a manner, that it is doubtful whether the man would come out of the operating room alive. The great loss of blood, the uncertainty of being able to take away the whole of the swelling, and the probability, not to say the certainty, of a relapse, if the immediate dangers of the operation were got over—are then the considerations, which lead me, very reluctantly, to concur in the judgment delivered by Mr. Liston. The greater part of the tumour is very moveable, and, I have no doubt, might be dissected off the subjacent parts without great difficulty, but there is a portion of the tumour under the left angle of the jaw, which is more attached, and the depth and extent of which is not known.

I am not aware that, in this case, any of the neighbouring absorbent glands participate in the disease, as very often happens.

—o—

NEW POOR LAW ACT.

To the Editor of the London Medical and Surgical Journal.

SIR—As the public press, both medical and non-medical, has for some time past been literally inundated with communications from various practitioners in the country, respecting the inadequate remuneration offered by those intrusted with carrying the New Poor-Law Bill into effect, to such of the medical profession as are desirous of undertaking the management of the sick poor, and also censuring the conduct of those, chiefly junior members of the profession, who have accepted the proffered guerdon previously refused by the resident practitioners, it may be as well to devote a short space to the inquiry: 1st, How far practitioners, by their conduct towards each other, are justified in expecting liberal treatment from others; and 2ndly, How far the strictures against the junior members, are in this instance justified by circumstances.

Now, in the first place, it does not appear to me that the conduct of medical men generally, is such as should be evinced by members of a liberal profession, (using the term "liberal" in its proper, and in its perverted sense). For example, have not practitioners, from time immemorial (either to gain the favour of the higher classes, or influenced by the selfish motives of keeping others out), been in the habit of proffering their services at dispensaries, workhouses, &c., for nothing at all, or for barely the cost of the medicines furnished? And if this has been voluntarily done by themselves, is it not absurd that they should now complain of others underrating their services? If one gentleman is called to a case previously attended by another, although by the express wish of those most interested, namely, the friends of the patient, is he not generally considered an interloper, and regarded with much the same feeling as would be displayed by a dog, towards another who had purloined his bone? Is it not common in country towns especially, for the different practitioners to be scarcely upon speaking terms with each other? It is well known that such is the fact, though there seems no earthly reason why it should be so, or why jealousy, selfishness, and absence of all friendly feeling, should hitherto have been so peculiarly characteristic of our profession. I say hitherto, because I fancy I have lately observed evidences of a better spirit prevailing, and such as makes me confidently look forward to the display of a better understanding, and a more kindly feeling towards each other.

We now come to the second part of my inquiry; namely, "How far the strictures against the junior members, are in this instance justified by circumstances." And here I shall endeavour, as concisely as possible, to prove that they are by no means justified; and in order to do this, I shall merely adduce the case of medical assistants. Now, it is well known that 30*l.* a year is about the average amount of salary offered to this numerous, but degraded class, by their more fortunate professional brethren; some few, it is true, offer more, say 40*l.*, but it is notorious to all, that gentlemen, making between 2000*l.* and 3000*l.* a year by their practice, think they act liberally in giving 50*l.* And for this 30*l.*, 40*l.*, or 50*l.* a year, as the case may be, a young man must give up some of the best years of his life, his liberty *always*, and *frequently* his most intimate friends and relatives. Now what, in addition to the salary, does he gain by this sacrifice? Why the acquisition of a connexion, which, unless (which is seldom the case) he enters into partnership with his employer, will be of no use whatever to him in forwarding his future interests: It will perhaps, be said, oh! but he gains that experience in his profession which will better qualify him for practice—granted: but so does his employer in every case he attends, and yet he would doubtless think it rather odd if such a plea were argued by a patient, as an excuse for deducting the greater portion of the amount of his bill—in short, who would be well paid, if only those who gained no experience in the exercise of their calling? The real question seems to me to be this: Does not an assistant generally do as much as he for whom he acts? Is he not generally quite as useful, quite as efficient as a partner would be? And if these questions are answered in the affirmative, as they must be if fairly considered, then let me ask, on what ground can remuneration so disproportionate to the services rendered be defended? And yet those who offer such terms to gentlemen, frequently in every respect their equals, never seem to entertain an idea that they are acting otherwise than honourably, aye, and liberally; and would doubtless be greatly surprised at hearing them described as "miserable pit-tances," "base allowances," &c.: but when a young man, unable from want of funds to establish himself in practice, and unwilling to degrade himself by accepting the wages of a footman, undertakes, in the hope of bettering his condition, to attend a district of paupers for something less than the resident practitioner, then these consistent gentlemen are immediately up in arms, and he is at once accused of being actuated solely by mercenary motives, and stigmatized as one "who dishonourably supplants his more respectable neighbour by under-bidding him in his contract." Might not the scriptural

injunction, "First cast out the beam," &c. be advantageously studied by these worthies?

In saying this much, however, I disclaim all intention of making any, the slightest apology, for the conduct of those of the guardians who have allowed economy to stifle the promptings of humanity, when considering the best means of providing medical attendance for the poor. My only object being to shew, that the members of the profession themselves, furnish the best excuse for their present treatment by these guardians, and for every other indignity with which they are assailed. Whether a more liberal spirit manifested throughout the profession itself, would cause the said gentlemen to treat its members with more respect, may perhaps be questioned, but at any rate let it be tried, and in the meantime, let us hear no more about "base allowances," "miserable pittances," "disgraceful conduct," but above all, no more prating about the dishonourable conduct of those, who, driven by practitioners themselves to the necessity, have in some instances, by accepting inadequate remuneration, done an injury to the interests of the profession generally. I am, &c.

Dec. 16, 1835.

F. S.

—o—

MEDICAL BOTANY.

PLATE XI.—*Datura Stramonium*.

(Thorn-apple).

Off.—The plant and seeds.

The thorn-apple is an annual plant, indigenous in the north of America, but now grows wild on dry hills and uncultivated places in England. The herb grows from one to two feet high. The stem is straight, cylindrical, smooth, a little shining, simple below, dichotomous at top, with diverging branches, very slightly pubescent, leaves about the size of a hand, alternate, a little succulent, oval, pointed, unequally sinuated and toothed, of a dark green, shining, and marked with veins, having short footstalks, cylindrical, a little canaliculated at the upper part, flowers axillary at the division of the branches; fruit an ovoid capsule, covered with very sharp prickles, consisting of four incomplete cells, communicating two and two, and opening equally by four valves.

Every part of the plant, when bruised, has a disagreeable smell and nauseous taste. The thorn-apple is a strong narcotic poison, producing vertigo, torpor, death. Dr. Barton mentions the cases of two British soldiers, who ate it, by mistake, for the *Chenopodium album*: one became furious, and ran about like a madman, and the other died, with the symptoms of genuine tetanus. The best antidote to its effects is said to be vinegar. The leaves have been analyzed by Promnitz. He got gummy extractive, 58; extractive, 6;

fœcula, 64; albumen, 15; resin, 12; and salts, 23=100.

The seeds are small, kidney shaped, brownish, and rough on the surface. They contain the narcotic principle in a more uniform degree than the other parts, and hence are more to be depended upon for internal use. They are said to be added to ferment for liquors, to render them more stupifying of criminal purposes. An excellent analysis of the thorn-apple seeds has been published by M. Brandes in Buchner's *Repertorium* for 1821, and in which it is shown that its peculiar properties depend upon a peculiar alkaloid, *Datura*.

Med. use.—Dr. Stoerck first tried the herb as a remedy in mania and melancholy, with considerable success. It has also been employed, and sometimes with advantage, in convulsive and epileptic affections. Dr. Barton of Philadelphia gives it in powder, beginning with doses of a few grains, and increasing them, in some days, to 15 or 20. In a case, in which it was exhibited to the extent of 30 grains, it dilated the pupil of one eye, and produced temporary paralysis of the eyelids. Hufeland gave it in the form of a tincture, prepared with two ounces of the seeds in four ounces of wine, and one of diluted alcohol, in diseases of the mind. The inspissated juice of the leaves has been most commonly used; but its exhibition requires the greatest caution. At first, a quarter of a grain is a sufficient dose. Externally, an ointment prepared from the leaves has been said to give ease in external inflammations and hæmorrhoids. And the bruised leaves, according to Pleak, soften hard and inflamed tumours, and discuss tumours in the breasts of nurses, from indurated milk.

The smoke of the stramonium has been much extolled for the cure of asthma. Its use in this manner has been derived from the East Indies, where, however, other species of *datura*, the *fatuosa* and *ferox*, are employed. It is the root and lower part of the stem which are used. These are to be dried as quickly as possible, cut into slips, and beat so as to divide the fibres. The manner of using them is by filling the bowl of a tobacco-pipe, as with tobacco, and inhaling the smoke. Stramonium smoke excites a sense of heat in the chest, followed by copious expectoration, and sometimes attended with temporary vertigo or drowsiness, and rarely nausea. It frequently gives relief when a pipe is thus smoked upon a paroxysm being threatened, or even after its commencement; the patient falls asleep, and awakes recovered from the paroxysm. In some cases a perfect cure is effected, but more commonly the relief is only temporary. It has been found very valuable as a palliative. The direct application of the remedy to the seat of the disease is at least rational.

London Medical and Surgical Journal.

No. 205.

SATURDAY, JANUARY 2, 1836.

VOL. VIII.

SELECT LECTURES,

FROM

M. BROUSSAIS'

*Course of General Pathology and Therapeutics;
translated and revised*

By JAMES MANBY GULLY, M.D.

LECTURE XXIX.*

*Characters that are common to the Abdominal
Phlegmasiæ.—Conclusions.*

At the commencement of this course, I gave you a general summary of the facts that were to serve as preliminaries, and prepare you for the language which it was my intention to employ. A division being made, I entered upon the first section of diseases; namely, inflammations: we have studied them; first, in the exterior of the body; next in the openings of the mucous membranes, where they partake partly of the external and partly of the internal character; and, thirdly, in the interior of the body, or viscera, commencing with the abdomen. For pursuing this course I have had an urgent reason, which is, that the abdomen is the recipient of the great modifiers of the system, and particularly of the medicines, by which the physician strives to act on the morbid condition, and beneficially to modify the economy. It was of the greatest importance to be in the first place, acquainted with inflammation in the digestive canal, because it is on it that we are almost invariably obliged to act, in treating a patient. In order to complete this subject, I then

considered the same phenomenon in the other organs of the abdomen.

Now, in the series of questions which we have treated of, have we seen any diseases? No: it is still the phenomenon of inflammation, developed in different organs of the exterior and interior of the body. I say that these are not diseases, because the phenomenon in question rarely passes through its periods, so as to constitute a pathological unity; and generally to present inflammation of an organ in all its shades, as such unity is to propose the adoption of a chimera. One might, by straining a point, do so, in regard to any small circumscribed inflammation, such as a boil or an erythema, the periods of which may, in fact, to a certain point, be followed from beginning to end; but so soon as this inflammation has extended, and become so intense as to cause disturbance of the economy, it is no longer possible. Medicine will never be understood until these propositions are: let us then endeavour to establish them on a solid basis.

If an inflammation is sufficiently intense to excite the heart and accelerate the course of the blood, and especially if it be mortal, it is no longer a disease similar to those that are confined to the exterior of the body.

A distinction should be made according to the organs affected, and the intensity of the inflammations. If the organ be a secondary one, and only slightly affected, the pathological unity may exist even in the interior of the body. The skin affected with a circumscribed boil or erythema, the lower portion of the colon, or a very minute spot of the stomach, attacked with a slight phlegmasia, the cure of which may be easily effected, realise these two conditions, and exhibit inflammation in a certain degree of simplicity or unity. But if one of these conditions is changed, if the organ in question is affected to a great extent, the unity ceases to exist, the simplicity disappears, the disturbance extends into the system, the viscera become so affected, the skin from being the chief point in the onset, becomes only secondary, and that of the colon or stomach becomes complicated with other viscera.

It is extremely difficult to detect the inflammatory unity of an important organ

* Between this lecture and the last that I have selected, M. Broussais treats of various phlegmasiæ, which, as they do not develop any of the peculiar features of his doctrine, I have omitted. The phlegmasiæ alluded to, are those of the liver, spleen, pancreas, kidney, uterus, and peritoneum; these, though not germane to the object I had in view, in compiling the lectures, namely, the exposition of his own opinions, are so replete with valuable observations, as to make me regret that other occupations oblige me to keep that object alone before me.—J. M. G.

slightly affected, of the stomach, for instance. A man must have a well-formed habit of observation, and be a profound physiologist, to distinguish such a slight affection, which by vulgar medical men would be taken for a neurosis, and about which even the most skilful physiologist might well be embarrassed. Are the intestines affected in slight degree, the same error on one hand, and the same difficulty on the other, are produced. The same may be said of the kidneys and uterus. When inflammations are commencing they are not recognised, reference is only made to the disorder of the functions: these are, gastric disorder, constipations, diarrhœas, &c.; vague words which show ignorance of the fundamental character of these diseases, and a stopping short at what is most prominent in them. But, you will ask, how do *you* know this? I answer, that a close and persevering attention has taught me to distinguish such shades from among all others.

When any important organ whatever is seriously disordered, the disturbances that ensue are so numerous, as to put out of sight the inflammatory unity. Those who have attempted to describe the phlegmasiæ of the digestive canal as such, fall into confusion, from which they are unable to extricate themselves. These phlegmasiæ do not proceed as does a small phlegmon of the skin. We can describe tolerably clearly an articular inflammation, a slight attack of gout, an erythema caused by fire, &c., but the inflammations of the viscera propagate, multiply, and disseminate; and the phenomena consequent on points, being simultaneously or successively affected, as well as the changes of the predominant point of irritation, render its progress variable, uneven, disordinate, apparently capricious, and the general history exceedingly difficult. To give a lucid exposition of it, you must have followed with the eye all these movements of the inflammation, and have driven from your head all the absurdities of the humoral ontology; but this it is difficult to do, science being yet, on this point, only nascent, and the requisite faculties for it being, moreover, of some rarity. In order to cultivate medicine with any degree of profundity, we must have men who go in the footsteps of the most distinguished philosophers, moralists, physical philosophers, and legislators, and who are not content with learning only one disease and one corresponding remedy. So long as the physician neglects the approximation of facts and reasoning, he will be below what he ought to be; and in calling on him for the remedy of a disease, he will be justly likened to a mechanic who is required to find some piece for a broken article.

I have said that the slight phlegmasiæ of the abdominal viscera are obscure; antiquity knew nothing about them, and the moderns have made unintelligible entities of

them. But the serious affections of the same viscera are still more confused. For the rest, the obscurity is here owing not only to the variations of situation and intensity, but also to the great quantity of nerves the abdomen is provided with. Nature's first object being to sustain the life of the animal, by obliging him to nourish himself at any price, she contrived that this abdomen should exert a powerful influence over the brain, the seat of the will; and this influence the animal exercises by means of the nerves, in the same manner as the genital organs, which have likewise a great number of nerves, make theirs felt, without which nothing would lead us to the accomplishment of an act which appears beastly to those to whom it has but feeble attractions. These visceral influences are subordinate to the action of the nerves, of which there is a considerable mass, generative of the necessity for our nourishing ourselves, and for reproduction. But, you will say, have we not equal necessity for breathing, and yet there are not so many nerves, nor so much sensibility in our lungs as in our digestive and generative organs. This is all true: but you have no occasion for the volition to breathe: non-voluntary nerves preside over respiration, and the pulmonary aliment is found in every part of the atmosphere. Aliment for the first digestion on the contrary, is not so presented, particularly when an animal is carnivorous: it must be sought out, he must look for it, fight for it, and prepare it by a series of very multiplied voluntary acts. The object, that is, to satisfy the necessity for generation, also requires numerous proceedings. It was therefore necessary that the intellect should be powerfully influenced by the organs, wherein reside the wants of nutrition and of generation: it was necessary that these organs should be provided with an immense quantity of nerves.

How then would you, that a cavity so rich in nerves as is the abdomen, should be affected as others are, and that a phlegmasia of the digestive canal should be compared, as regards the sympathies, with a phlegmasia of the skin? What hope can you entertain of describing it as pure and simple, of isolating it from the other organs, and of composing a particular history or monograph of it, that shall exhibit nothing but what is exclusively peculiar to it? Will not the economy be inevitably affected by it?

I am therefore authorised in saying, that what I have treated of are not diseases, but the phenomenon of inflammation in different organs, the manner of the disturbance of whose functions is to be carefully remarked.

Sometimes an important organ may kill, although it alone may be affected. Not to stray from the facts which I have pointed out to you, I may recall to your minds, that when a violent blow, that suddenly disor-

ganises a portion of the mucous membrane of the digestive canal, is inflicted, life cannot continue, and the individual perishes, in the same manner as when a certain extent of the mucous membrane of the internal gastric sense is destroyed by a poison, or by an inflammation. Whatever the connexions may be that preside over these phenomena, such is the fact—the gastro-intestinal mucous membrane cannot be disorganised independently of the brain. Meanwhile, until this fact is explained, I make use of it to judge, by the state of the cerebral functions, or of the innervation, of that in which the mucous membrane of the digestive organs is, and I am scarcely ever deceived. I have not obtained this mode of diagnosis by divination, but I have all along paid so much attention to the observation of these connexions, being, as they were, of the greatest interest to me, that I arrived at results on this point that might have been considered impossible.

The history, therefore, of visceral inflammations is far different from that of external inflammations, and demands far greater attention. I repeat, we have not been studying similar diseases in the external and internal parts of the body, but only the phenomenon of inflammation modified according to the vitality of the organs. If, unfortunately, I have not been happy in making this proposition understood, I am sorry for it, for it is a fundamental one.

Another important proposition which I would recall to you is, that inflamed organs are incessantly tending to inflame others, and especially the digestive canal. If they are violently and suddenly inflamed, they may kill the patient by their influence on the centres of innervation, before the inflammation has had time to develop itself in any viscus, even in the nervous centres themselves; such as extensive burns, widespread erysipelas, superinflammatory scarlatina, some very confluent variolæ, &c.; but, if the inflammation be less intense, and if it continue, it is more or less reiterated in the digestive canal. Well, even in this case it is difficult to describe, in an isolated manner, the inflammation of the digestive canal, inasmuch as secondary and nervous phenomena are joined to it, which may be numerous, and are complicated with those of the point primarily affected. Such inflammations are the most formidable difficulties of medicine; and thus it is that four thousand years have elapsed before a just idea has been formed of them. Yet so it is: primary inflammations of the digestive canal may produce rapidly mortal neuroses. So it is: when these are extensive they become complicated with secondary inflammations. So it is: inflammation of the external organs, if considerable, is reiterated in the internal, and particularly in the digestive tube; arrived at which, it is more and more dis-

seminated in the system, so much so, that if a pure and simple phlegmasia of that tube can scarcely be conceived of. Of a pure and simple metritis, a cystitis, or nephritis, we may conceive, but not of a gastritis, unless it be very, very limited: but then it is mistaken by physicians, except by the small number of those who have become habituated to the observation of it.

As regards the phlegmasiæ of the apertures of the mucous membranes, you have seen that, when they are sufficiently intense to agitate the heart and disturb the nervous system, those of the viscera are imminent, and that there also the digestive canal is the first affected.

For all these reasons, therefore, how difficult must the formation of lucid monographs appear to you, of the visceral inflammations, of the inflammations of the apertures of the mucous membrane, and even of those of the most secondary organs, such as the skin.

At the time when the physiological doctrine appeared, its propositions were exclaimed against, and it was accused of attributing every thing to the digestive canal. This accusation proceeds from impatient persons, who will not give themselves the trouble of understanding all the parts of it, and who judge of questions before they have investigated them. I have said, and I repeat, that there is no serious disorder in which the digestive canal does not take some part; only admit the fact that inflammation is disseminated by the nerves, and you may imagine this almost mechanically. The organs possessing the greatest number of nerves will receive the greatest proportion of inflammation. This is precisely the position of the digestive canal, besides which there are a great number of secretory apparatus, and it receives a vast quantity of blood; in a place where blood and nerves abound, there cannot fail to be an extreme tendency to inflammation.

Let us examine the method employed by those who write monographs on the pure and simple inflammations of the organs. This method gives an air of clearness to the exposition of the symptoms, but at the bottom, it is all confusion. When they describe an inflammation to you, ask them how they establish its characters, and whether it is by that only which appertains to the organ whose state they depict. If they do but this, they have only a very few symptoms to enumerate; in gastritis they will not mention more than sixty or eighty; but they take the irritations of the other organs as the attributes of that whose inflammation they describe.

In order to trace these kinds of inflammation, it is necessary to distinguish all the co-existing inflammations, and mention them according to their degrees of importance. But those which surround phlegmasia of the digestive canal, when long continued,

are so numerous, as to give considerable anxiety to our monograph writers; therefore, when they behold three, six, or ten diseases, superadded to a gastritis, they no longer regard it as a gastritis, but a fever—an utter mistake that might be avoided, if they adopted my method. Had the phenomenon of inflammation to follow as a thread, they would no more be lost in a vague, and they would feel how impossible it is to regard the phenomena of nervousity, or inflammation of other organs, as characters of inflammation of the digestive canal; instead of which they say that these phenomena are complications—complications of what? That is what they must tell us. An intense inflammation disturbs the economy, and gives rise to other irritations; but are these irritations similar diseases to those experienced by the same organs when primarily inflamed? Acute pains of the bladder occurring in an individual affected with gastritis, would you say that this is a complication of inflammation of the bladder? It is not a complete cystitis, it is only a repetition of the phenomenon of irritation, that exists elsewhere in the degree of inflammation, but not necessarily here. Muscular pain occurring in the same individual, the question and answer are the same. These are secondary phenomena to another of the same nature, complications of the primary inflammation, and not inflammations such as they would have been had they existed alone. This secondary irritation sometimes rises to the degree of the primary irritation, or even exceeds it; here again is another possibility. To these must be added the vices of secretion, of exhalation, of nutrition, of innervation, which arise, in different degrees, in the viscera that are secondarily affected, besides suppurations, ulcerations, &c.; all proving that the word complication indicates a crowd of widely-varying phenomena, and such as it is absolutely necessary to distinguish. This I had in view when I stated that inflammation is developed here or there, and that it disseminates irritation: had I, instead of this, said that it becomes complicated with other diseases, I should have led you into error. On opening the work of a nosologist, to read the description of a primary inflammation situated in an organ wherein you observe a secondary one, and you have seen it last a certain period of time, and proceed in a certain manner, you would be considerably astonished at seeing that your complication had not proceeded in the same manner, and that it had not lasted the same length of time as the primary inflammation of the organ. Once more I say it is the phenomenon of irritation that is developed and repeated in several organs, wherein it proceeds according to the constitution of each one, and according to the predispositions that impress immense varieties on it.

Moreover, the partisans of the method in

question behold in these phenomena general symptoms that are added to the particular ones. Do they describe a nephritis-cystitis, or gastritis, accompanied with fever, they tell you it is a general symptom: if lassitude accompanies, they tell you the same, and so on; in this manner they make a series of general symptoms. I have already inveighed against this abuse, and at present I content myself with repeating what has been proved in another place, that these supposed general symptoms are only repetitions of the phenomenon of irritation, repetitions that are more or less nervous, more or less inflammatory, according to the organs, and which are reproduced in some ratio, with the intensity of the primary inflammation. This kind of language only expresses facts, without prejudging their nature; if you adopt it, you will see how all confusion and ontology disappear. In fact, can any thing be more true or more clear than to say, when inflammation arises slowly in a point, and is simple, it does not disturb the economy; when it bursts forth with violence, it causes disorder in it, by irritating the nerves, by deranging the secretions, by altering the organic movements, and that the nerves propagate the excess of innervation that exists in the primary seat of the inflammation? Indeed, if this inflammation develops in an organ having no communication with the central nervous apparatus, it is purely local, and the economy feels it not: you have this demonstrated in the plegmasiæ of paralytic persons.

All the secretory organs are under the influence of the nervous system, and their products vary according to the state of innervation; the saliva, the bile, the semen, &c., are altered in their composition when irritation reaches, through the medium of the nerves, the organs, whose office it is to elaborate them.

Nor have the muscles the same contractile energy, nor obey so readily, nor answer the will, when the inflammation of any organ has passed certain limits; the proof of which is, that by dissipating the latter they recover their freedom, and by renewing it they again fall into the same condition.

The affective faculties are also altered; and to this sufficient attention has not been paid. When a serious inflammation exists, that disseminates irritation through the system, things formerly liked are no longer so, aliments are rejected, and matter alone desisted; instinct changes, habits, tastes, desires, appetites, are all lost; the once most agreeable stimulants, as of snuffing or smoking, for instance, become insipid; the conversation or reading that previously charmed, is now irksome. But the intellect does not so soon become disturbed as the affective faculties; the latter sometimes become depraved to such a point, as that persons formerly beloved are detested, and

those preferred who were hated; meantime there is no delirium. Yet the intellect may also be affected, even in those cases where the patient is still rational. You may ascertain this by asking him about science, or other matters, that were previously attractive to him: he will refuse to answer, and beg you to leave him alone. Thus the intellectual faculties are altered, though there is no delirium; but allow the irritation to go on increasing in the focus of phlegmasiæ that is acting on the brain, and delirium will soon appear; subdue this irritation, and it will disappear. These are facts that give proof upon proof of the dissemination of irritation.

The current of the blood is accelerated, and disorders must necessarily result from it, of which I must give an account, otherwise you will accuse me of being nothing but a solidist. When the circulation is accelerated, the blood is no longer well oxygenized; it comes in greater quantity to the organs: nutrition and the secretions, which require a certain retarded movement of the blood, are deranged; the brain is not only attacked by unusual stimulations, which disturb its functions, but is, moreover, congested with blood; it is, therefore, exposed to inflammation, and we may rationally consider the acceleration of the blood's current as the cause of it. Many other organs are in the same predicament.

It has been said that fever produces inflammation; but this is inadmissible. When I have maintained that inflammation produced fever, they replied by the inverse proposition; and they would not understand that the acceleration of the blood's current might have, in certain cases, in producing inflammation. They would not understand that, when the organs are more than ordinarily stimulated, if there be a point of irritation in one of them, the blood may accumulate there, and form an inflammatory congestion; if this point be the lungs, a bronchitis, or pulmonary engorgement, will form about it—the brain being previously superexcited, and the blood coming to it with more than ordinary violence, a congestion may obtain there, &c. A change in the state of the nerves and in the blood must necessarily produce one in the vital properties, that is to say, in the contractility of the parts.

In summary, we see, in the first place, that an uni-local phlegmasia may become pluri-local; and, next, that an inflammatory disposition, common to several organs, and resulting from precipitated innervation and acceleration of the blood's current, may concentrate its effect on a predisposed and superexcited point, and develop an inflammation there.

As regards the termination of inflammation, we have seen that when it is slight, the cure is possible by virtue of certain laws, which displace the irritation, and

transfer it to the secretory organs, where it appears as if extinguished in water. Thus it is that a slight bronchitis or gastritis, may sometimes disappear after a sweat or a bilious evacuation; but if this phlegmasia occupies the major part of the visceral apparatus, this is no longer possible—autocratism yields; if it be a complete gastroenteritis or peritonitis, we cannot expect resolute crises: there is no majority of sound organs to liberate the diseased organs. What then happens? serious disorders, that kill the patients by excess of innervation, or by extensive disorganizations.

There are still other differences in the proceedings of inflammations. An inflammation—even a considerable one—occurring in a permeable organ, and one that reacts on others, as does the digestive canal, may disappear by natural crises, and sometimes even by stimulation. There is a kind of safeguard for patients that are treated by the partisans of the *natura mediatric*. But suppose an extensive peritonitis, and the matter is changed: the tissue is not one that will receive stimulation, that can get rid of it by its excretory apparatus, or vent it upon others, and you cannot rely on beneficent nature for sweats and other secretions; extravasations will take place; the patient will be carried off by the violence of the nervous phenomena, or his disease becomes chronic—he will die in detail. When pompous eulogiums were made of the resources of nature in acute diseases, and when you have heard mentioned the powers of crises, these vast peritonites, and the terrible inflammations of the spinal cord, were put out of sight; nothing but fevers were seen, which are almost always phlegmasiæ of secretory organs, nothing but symptoms, depurative and conservative movements, &c.; there was no reasoning from facts. If you shrink from these reflections, you are no logical physicians. The word inflammation once pronounced, you must follow up all its consequences.

What have I deduced from these facts with regard to the prognosis? These two short propositions:—the more limited the inflammation is, the better is the prognosis; the more extensive it is, the worse. What with regard to the treatment? The following propositions:—

1. To circumscribe the inflammation in the smallest limits; because, once limited, it readily terminates. To be ever on guard against its propagation and dissemination: not to wait until the nosological utility is completed: always to learn where the irritation is, in order to become master of it.

2. When this cannot be done, to at least diminish the intensity of the inflammation, in imitation of nature, by exciting the eliminators; an indication that is divisible into two sections:—A. To irritate the inflamed part itself when it abounds in secretory and exhalant apparatus, because it is proved

that, after blood lettings, it may lend itself to a supersecretion that may aid in relieving the inflammation. B. To irritate another organ that may also secrete, and this is the more prudent plan. This proposition includes the cures that are supposed to oppose my principles; whereas they only confirm them.

3. To seize the moment when nutrition becomes possible, in order to return to the system the materials that it has lost.

4. To look to the abstraction of the causes that have produced the disease, and of those that are analogous to them. Thus the study of causes becomes fundamental. Those who affect to leave them in a vague state, or who deny their importance, have not sufficiently reflected.

5. To give constant provision of two principal agents—air and caloric; a pure air—no chilling nor excess of heat.

6. When we have failed in subduing the phlegmasia, and it has gone on to suppuration, to aid the work of local reparation which cicatrizes ulcers, resolves engorgements, causes the elimination of foreign matters of that process; in short, that you see in external wounds and tumefactions in surgical cases, for it is with surgery that the study of medicine should begin. In such cases sedatives and stimulants are alternately employed;—the same must be done internally.

7. To aid the return of the vital properties and fluids to the normal condition. You have seen how every phlegmasia that lasts a certain time alters the fluids and nutrition, and you may be tempted to take this fact as the basis of the principal indication; but be not deceived; and, above all, have a care not to lapse into humorism;—even when mucous shall have entered the system, they will leave it, and all will come round with good air, and proper aliment.

Such are the leading points to which I would direct your thoughts.

—

[This lecture concludes one great section of the subjects concerning which the opinions of my author are peculiarly his own—original in the manner in which the facts are connected—original in the process of reasoning, and in the practical inductions drawn from the facts. I think that in the twenty-nine lectures which have been selected, abundant refutation will be found of the absurd assertions so lavishly put forward with regard to the Broussaian doctrines of inflammation and fever, as well as abundant opportunity afforded of rectifying the partial and erroneous views that may have been embraced by those whose knowledge of them has been gleaned from the meagre and rapid disquisitions of our metropolitan lecturers on medicine. For how often is this doctrine, which has revolutionised pathology more decidedly than any

previous one, dispatched by a few words (if mentioned at all) in the “full and complete courses of forty-five lectures,” that hitherto comprised the whole pathological teaching required in a London medical education! Students are told that it is only “a theory,” at the same time that they are led to believe that a theory is an unsubstantial edifice, based on a gratuitous assertion or hypothesis: granting which to be correct, though it is opposed to the proper definition of the term, I would ask whether, in the preceding lectures, any thing resembling a theory is to be found? Theory is nothing more than the grouping of facts, and their reference to one recognised principle or principal fact; and in this view, what is advanced by Broussais on the subjects of inflammation and fever is a theory—one that differs widely, in the mode in which it is built up, from the ideas of Boerhaave, Hoffman, and Cullen, on the same subjects. Theirs were *bonâ fide* hypotheses, and answer precisely to the absurd definition of theory above mentioned—the *error loci* of the former, and the *spastic stricture* of the two latter being conditions imagined by the respective brains of those writers, and made the basis of all their subsequent reasoning. Yet Cullen's nosology, founded on this spasm, is the test of students of pathology to this day! If these lectures shall have only led any portion of the readers of the *Medical and Surgical Journal* out of such a beaten yet irrational track, into a field of more philosophical reflection on the nature, causes, and cure of the pathological states therein treated of, my object will be attained.

The other great section of the Broussaian doctrines of diseases, which comprehends the neuroses, will probably at some future time form the subject of another course.

J. M. G.]

—o—

On the Diseases of the Skin.—Anatomy, Physiology, and Pathology of the Tegumentary Apparatus, or the Skin.

THE diseases of the skin are not comprehensively described in any modern medical school in this country, and students receive the highest testimonial, a diploma, or license to practice, without any or very little knowledge of their nature or treatment. It would be impossible to defend the omission or exclusion of cutaneous diseases in a course of medical education. I shall therefore describe them minutely, and refer to the works of the best writers on the subject. It will, I think, appear, on a brief reference to the Anatomy, Physiology, and Pathology of the Skin, or to speak scientifically, of the tegumentary tissues, that they afford an immense field for investigation and study; and because the almost innumerable diseases of this system, which are of the most frequent occurrence, ought to be fully understood by

every class of medical practitioners. I am aware that a few elementary works may be procured on this subject; but these are seldom studied, because candidates for medical honours in London, Dublin, and Edinburgh, are not examined on diseases of the skin unless by the Universities or Colleges of Physicians; and never, so far as I have heard, by the Colleges of Surgeons or Societies of Apothecaries. But the public health and the personal interests of the members of the medical profession, render the study of cutaneous diseases imperative; and for this reason I shall describe them minutely.

It would be utterly impossible to form a correct opinion upon the importance of diseases of the skin, unless the anatomy and physiology of the tissues that compose it be clearly understood. But as these are generally described by anatomists, and known to well educated medical practitioners, I shall therefore notice them very succinctly on the present occasion.

Anatomy of the Skin.—The structure or organization of the skin, in infants, adults, and aged persons, should be known by all who undertake the treatment of cutaneous diseases; and according to Baron Alibert, even in quadrupeds, and in all the osteozary animals.

The latest account of the anatomy and functions of the tegumentary system, is by M.M. Breschet and Rousel de Vauzeme, which was read before the Royal Academy of Sciences, Jan. 1834, and published in the "London Medical and Surgical Journal, 1834. v. 5." This essay is much too long for citation, but it comprehends the following heads:—1. Dermis, skin; 2. Nervous papillæ, or the mucous body; 3. The apparatus for the secretion of perspiration, composed of a glandulous parenchyma, or of the sudoriferous and hydrophorous canals; 4. The apparatus for inhalation, or the absorbent ducts; 5. The apparatus for secreting horny substance, or the peratogenous apparatus; 6. The apparatus for secreting colouring matter, or the chromatogenous apparatus; 7. The epidermis or cuticle, with its appendages—the nails and hairs.

The skin or corion envelopes the body, varies in consistence and thickness in different regions, is sensitive in mammiferæ, of a whitish red colour, permeable, extremely vascular and papillary (nervous); and therefore liable to inflammation, and painful disorders. "It is by this layer," (the papillary,) says Baron Alibert, "that tegumentary apparatus sympathises with the centre of moral affections, with the intimate source of emotions and thoughts; it is the papillary tissue that is the true source of contact, and the most powerful means of relation."

The skin is supplied with a vast number of arteries, veins, lymphatics, and nerves, with simple sebaceous and mucous glands, which are also called follicles, lacunæ.

There are three sets of pores, one for transmitting the hairs, the other for the passage of the vessels, and the third the sebaceous follicles. Many able anatomists deny the existence of pores, as these were not detected by the aid of the strongest microscopes; while Chevalier is of opinion, that there is an infinite number of minute velamina on the cuticle, which form a bibulous or hygrometrical covering, in which the terminal vessels are lodged, and through which, during life, exhalation and absorption are effected. (*Lectures on the General Structure of the Human Body, and on the Anatomy and Functions of the Skin, —also Grainger's General Anatomy, &c. 1829.*)

The rete mucosum is placed between the true skin and cuticle, and will be immediately described.

The epidermis or cuticle, which was long considered inorganic, is now believed to be organic, that it admits certain fluids, allows others to escape through it, and that it possesses a vitality peculiar to it. It is very thick on the heel, ball of the great toe, and hand of certain mechanics; all of which may be thrown off in erysipelas or scarlatina, specimens of which I have in my possession. Some anatomists have seen pores in the cuticle (Lewenboek, Richat, &c.); others could not detect them (Cruikshank and Gordon). Cruikshank has well remarked, that whatever may be the process by which sweat is conveyed to the surface of the body, it is not by mere transudation by which fluids escape in dead animal and vegetable matter. It is subject to many morbid alterations. It nourishes and regenerates itself. It becomes hard and thickened, as in corns, scaly as in ichthyosis and scarlatina; and again is analogous to mucous membrane. All the periphery of the living body is covered by this diaphanous membrane, which is unalterable by air, of a compact, elastic tissue, and prolonged into the intestines under the name of epithelium. It is mucous internally, and squamous, or scaly on the surface of the body. It is formed by the white layers placed between it and the true skin (pigmentum), is a horny substance excreted by the superficial white layer, and nourished by serous vessels. (Alibert.) The cuticle is now considered an organic substance, though blood-vessels, nerves, or lymphatics have not been traced into it. If it was inorganic it could not be intimately attached to living structure, nor could it be regenerated when destroyed by blisters, scarlatina, erysipelas, or ichthyosis. It is also remarkably imputrescible; that portion on the heels has been found in tombs in which the rest of the skeleton was reduced to dust. This white substance (pigmentum) is composed of two layers in animals, and is the source of coloration in living beings. It is called the rete mucosum, rete malpighianum, because it is covered by Malpighi, and consists of fibres, arranged in the form

of a net-work. This stratum is denied by some anatomists (Bichat, Chaussier, Dr. Gordon, Lawrence, and others). Those who describe it have been unable to trace nerves or blood vessels in it. "But we generally find," says Professor Quain, "on attentive examination, a viscid semi-fluid stratum, occupying the situation of the rete, which, however, is pale and inorganic, and, most probably, a secretion produced by the vascular surface of the cutis."—(*Elements of Anatomy*, &c. 1834.) It receives the extremities of a vast number of capillaries and lymphatics. It is the seat of the colouring matter, and, according to the conclusions of many anatomists, of those horny processes which are sometimes seen on the skin. Its existence is denied by Bichat, Chaussier, and Rudolphi, and described by Quain, Grainger, and others. M. Chevalier considers it a second or internal epidermis (*Op. Cit.*). It may also be regenerated.

Alibert and others state that they have observed a transparent layer under the skin in man and animals, and beneath this is the cellular tissue, which has great influence in the development of cutaneous diseases.

This tissue covers the minutest fibres of muscles and nerves, contributes essentially to the structure of organs, forms some exclusively, fills the intermuscular spaces, gives the external surface of the body its most beautiful forms, and is considered as the primitive tissue of the whole tegumentary and other systems. It is the seat of a vast number of diseases which may penetrate into its areolæ, as furuncle, struma, carbuncle, steatomatous, and atheromatous tumours, with many other diseases. The sebaceous follicles are described as shut sacs by some anatomists; are situated on the external surface of the cutis, and lined by processes of the cuticle. Some consider them distinct glands. M. Chevalier entertains the last opinion, and divides them into two kinds, one set being imbedded in the skin, and the other being placed between the rete mucosum and cuticle. The mouths or ducts of these glands or follicles open obliquely on the cuticle, and are often apparent on the nose, cheeks, edge of the eyelids, axillæ, &c. They secrete an unctuous fluid, which repels watery fluids, as we see exemplified when the hand is immersed in water. This sebaceous matter may be squeezed out in the shape of small worms, popularly termed "flesh-worms." This secretion is totally distinct from perspiration.

The appendages of the tegumentary membranes are the hairs and nails, and in animals, horns, feathers, scales, &c. The hairs (*crines*, *pili*) are horny filaments, which appear on the human body, except on the palm of the hand, but very much on the scalp, pubes, axillæ, face, eyelids, eyelashes, nose, ears, &c. The root of each hair is attached to a nervous papilla of the skin, and the cuticle is prolonged and iden-

tified with its substance, &c. The whole body is covered with hair, unless the palms of the hands and soles of the feet. The root of each hair is situated in the skin, or cellular substance beneath it. Blood-vessels, and, according to some anatomists, nerves, pass into the root or bulb. The connexion between the hair and cuticle is not satisfactorily explained. Some suppose the cuticle ascends on the hair, others that the hair perforates it. The hair is considered insensible, as destitute of nerves; but Professor Elliotson and Baron Larrey have recorded cases in which the hairs were exceedingly sensitive, and many others have attested the same fact in the disease termed *plica polonica*. The nails (*ungues*) are horny productions, composed of lamellæ, or scales. The root of each nail is received into a sulcus or groove in the skin. The under surface of the nail is attached to the papillæ of the skin; and its upper surface is covered by a cuticle which dips into the groove, and is then reflected over the lanula or white of the nail, and passes under its free extremity at the end of the finger, and is identified with it.

Mucous Membrane.—The tegumentary apparatus is prolonged into the passages of the body, the eyes, nose, ears, mouth, lungs, œsophagus, stomach, intestines, urethra, bladder, ureters, kidneys, vasa deferentia, and tubular structure in the testes of males. In females it lines the vagina, uterus, uterine or Fallopian tubes, and lactiferous tubes in the mamæ or breasts. This membrane is attached to subjacent organs by cellular tissue. That portion of it which lines the digestive and respiratory organs was termed gastro-pulmonary by Bichat, and that which lines the genital and urinary organs, genito-urinary mucous membrane. The tegumentary and lining membrane of all the passages of the body are continuous; and, therefore, the diseases of the one will affect the other.

The skin is an absorbent, exhalent, and contractile organ. In inferior animals it serves as a protection to external violence, and in the human species protects the surface of the body from the injurious effects of chemical agents. This object is effected by the secretion of the small arteries, and of the sebaceous glands or follicles.

The capillary vessels of the skin secrete a peculiar fluid, which is constantly passing off, unless interrupted, from the external surface, in the form of vapour, termed insensible perspiration, or condensed into liquid or sweat. The atmosphere and health of the individual modify this secretion; but the quantity passed, according to the experiments of Lavoisier and Seguin, is about thirty ounces, nearly two pints, and fifteen ounces from the lungs in twenty-four hours. Haller estimated the insensible perspiration at twenty-eight ounces, and Abernethy at two pints and a half, in a person of ordinary stature in the same period.

The perspiration has great influence in reducing the temperature of the body.

The sebaceous follicles secrete an oily matter, which is often observed in the form of drops on the surface, more especially on the forehead. In fine, the skin secretes a gaseous substance. It strongly sympathises with all other parts of the body, and each part with it. Thus most cutaneous diseases are sympathetic; for the skin sympathises with disorganization of all other organs. But its strongest sympathy is with the mucous membrane of the digestive and respiratory systems, and is continuous with it. (Chaussier, Ribes, Hebreard, Wibrand, Rayer, and others.) This fact explains why, in acute exanthemata, there is nausea, vomiting, or diarrhœa, pulmonic congestion, scaly herpes, in asthma, or the suppression of chronic eruptions followed by this disease, as I have repeatedly known. A strong sympathy also exists between the brain and skin; first, by nerves; and, secondly, by continuity; for, according to Dr. Fletcher and others, mucous and cellular membranes, or membrane, for they are identical. Thus we frequently observed cerebral congestion, coma, or delirium, in small-pox, scarlatina, or measles, or on the sudden repression of these and other eruptions. Again, the ingestion of cold fluid into the stomach may either suppress perspiration or cutaneous exhalation suddenly, or excite various eruptions on the skin. Warm drink, on the contrary, promotes perspiration. The skin also sympathises with the generative organs. The application of ice to the skin, or standing on a cold floor, the feet being uncovered, induces an immediate evacuation of the bladder. In fine, the skin is intimately connected with all organs, and all diseases may affect it. "It was on this account," says Alibert, "that this extensive envelope was a great subject of consideration with Hippocrates, Aretæus, Cœlius Aurelianus, and the other ancient observers. The skin is also influenced by an immense number of external objects, cold, heat, fire, light, injuries, &c., and is, therefore, liable to be diseased by such causes. The influence of the sun in certain climates is proverbially known to bronze the skin, while the diminution of the influence in crowded cities is a constant cause of paleness or etiolation."

Pathology of the Skin.—When we consider the diversified structure of the integuments which are popularly termed the skin, their sympathies with all parts of the body, the innumerable varieties of external influences to which they are subject, and the many functions they perform, we must expect that their diseases must be numerous. Thus each of the tissues which contributes to form the common integuments of the body, or tegumentary apparatus, is subject to peculiar diseases. We shall be convinced of this fact if we study elephantiasis in the derm, chorion, or skin, ichthyosis in the epi-

derm, or cuticle, cancer in the neurilema, various (warty) eruptions in the sebiparous canals, and exanthemata in the reticulated body. "The skin," observes Baron Alibert, presents constant diseases in its texture, in its consistence, in its colour, in its nutrition, and in the circulation of its fluids. It sometimes changes into an inert tissue, and deprived of vitality, mortification arrives under all its forms; it is subject to ramollissement (softening), to induration. We find in it hypertrophies, anormal mutations, or all the laws of nature, if I may use the phrase, invested. The skin, then, is of great interest to us, if we consider it as the seat of a multitude of diseases, whose external character vary according to the causes that produce them, and the greater part of which result from the continual errors and immoral habitudes of the human species." — *Monographie des Dermatoses, &c.*, 1832.

The importance of cutaneous diseases is not properly estimated by medical students or practitioners in general. Few consider this class of diseases minutely, or understand their pathology and treatment. The multitude of these maladies have been classified; but unfortunately the classifications are almost as numerous as the individuals who have proposed them. I shall next describe the etiology, diagnosis, and treatment of cutaneous diseases in general, and then give the history and treatment of each class of diseases. In the execution of this task I must observe that I have laid the best works extant, both national and foreign, under contribution, and extracted and arranged the most valuable parts in each, with a view of placing them in regular order—added the result of my own experience in public charities for nearly twenty years.

The *etiology* of cutaneous diseases has led to a great diversity of opinion. Some have exclusively ascribed them to constitutional derangement, others to infection, more to want of cleanliness. We certainly observed cutaneous disease most common in delicate infants, and we find that, by improving the general health and appetite, we generally effect a cure without any local application. This is the usual result when children are our patients. The students who attend the institutions to which I am physician, are often surprised at the favourable termination of eruptive diseases in children without any local treatment except ablation; and frequently after external means have been repeatedly tried by others in vain. Some cutaneous diseases are said to be infectious; such as variola, rubeola, and scarlatina, which generally occur to the same individual once only, though any one of them may affect him twice. It is worthy of mention, that the febrile or exanthematous diseases may occur twice in the same individual, though very rarely; while itch and syphilis, which are unaccompanied by fever, may occur several times.

Want of cleanliness is a source of cutaneous diseases, according to the most eminent writers, (Willan, Alibert, Plumbe, Rayer, &c.) and hence the frequency of such maladies among the poor. Every one acquainted with the anatomy and physiology of the skin, will readily understand that irritating substances applied to it cannot fail to induce inflammation; or, in other words, excite some cutaneous eruption or disease. Thus the natural secretion of the skin, or dirt of any kind allowed to lodge upon this tissue, must be a cause of disease.* If any part of the dress makes undue pressure, or causes irritation, the skin becomes red, inflamed, or blistered.

It is also a received opinion, that irritation of the mucous membrane of all the passages of the body, but especially of the digestive and respiratory organs, may cause cutaneous eruptions. The modern opinion of anatomists as to the identity of the skin and mucous membranes, affords a satisfactory explanation. They allege that the external covering of the body or cuticle, and the internal lining of the canals and organs mentioned, are continuous; and, moreover, that there is a strong sympathy between them. It is an axiom which cannot be denied, that irritation on the skin may derange the whole economy, and so may that of any other part of the body. In proof of this position, we need only refer to the exanthemata or eruptive fevers, to syphilis and other diseases. A blow on any part of the body, causing a contusion or a wound which might be covered with a pin's head, may excite tetanus, derangement of all the functions, which is followed by death.

Again, certain diseases or remedies may cause an unnatural appearance of the skin. Jaundice causes universal yellowness of the external as well as internal parts of the body; and a long-continued use of the nitrate of silver induces a permanent livid or dark appearance of the skin, which no plan of treatment hitherto employed has succeeded in removing. It is a very general opinion that impurity of the blood is the cause of cutaneous diseases; and we are often solicited to purify this fluid. The modern medical doctrines are opposed to this conclusion; but evidence is still wanted to set the question at rest. Every practitioner of moderate experience must acknowledge, that he employs sulphur, mercurials, antimonials, alteratives, sarsaparilla, &c., in cutaneous diseases; if not to purify the blood in such cases, at least to

effect a cure; on what principles, except the tonic or alterative, it remains for him to determine. He also exhibits acids or saline remedies in purpura scurvy, the last stages of typhus and yellow fevers, in malignant or blue cholera upon the former principle, and often with success. Some cutaneous diseases are peculiar to infants, others to children, more to adults, and some to old age. Many are peculiar to seasons, climates, trades, and modes of life. Thus grocers and bakers are liable to peculiar diseases.

The diagnosis of cutaneous diseases is still extremely imperfect. Some of the best writers have subdivided the different stages of the same disease into different species, both on the same and different parts of the body. Plumbe and Rayer adduce many proofs of this position. A vast diversity of opinions exists as to the treatment of those complaints. I have long divided cutaneous diseases into the acute or febrile, and chronic or non-febrile; and based the treatment upon these principles. In the latter, which are the more numerous, the improvement of the general health by aperients, tonics, and alteratives, with occasional use of external remedies, has been the most successful plan in my practice. In a vast majority of eruptive diseases on children, internal remedies, nourishing diet, cleanliness, ablution, and bathing, are sufficient, without any external remedy. The ampest attestation of this fact is daily afforded at the Hospital and Dispensary to which I am physician.

In exanthematous or other cutaneous diseases, accompanied by fever, the usual remedies for fever are indispensable. It matters little whether the disease be sanguinous, vesicular, pustular, &c., purgation, depletion, diaphoretics, and local bleeding, are generally required. In erysipelas, variola, scarlatina, rubeola, &c., general or local depletion, purgation, &c., are our chief remedies.

These diseases are often accompanied or succeeded by delirium, cerebral and pulmonary congestion, inflammation or congestion of the brain or lungs, which imperiously require antiphlogistic remedies, warm bathing, &c., as will appear in the separate history of each of these diseases.

In chronic cutaneous diseases, the chief indication of treatment is, to improve the general health, advise a nutritious diet, as white meats, milk, eggs, fresh vegetables, ripe fruits, and cleanliness, which very often effect a cure, after all medicinal agents have failed. These complaints very often arise from derangement of the general health, disordered digestion, filth on the skin, which induces inflammation. According to this etiology, improvement of the general health, and removal of inflammation of the skin, are the objects to be effected; we therefore order baths, fomentations, cata-

* So important did Sir Astley Cooper consider the function of the skin to health, that he stated in his last course of lectures, published in the *Lancet*, 1824, that one means he employed for preserving his own health was, sponging the surface of his body every morning with cold water.

plasms, simple or medicated, sea-bathing, vapour, sulphurous, ioduretted, and other medicinal baths, and in many cases with success. Fumigations are also valuable remedies. (Sir Arthur Clarke, and Dr. Wallace, of Dublin, and Decarro in Germany, Dr. Green, and others, in London.) These may be generally or partially applied.

Sulphurous preparations have long maintained a high reputation in certain cutaneous diseases, and are very much employed both internally and externally. Sulphurous fumigations and mineral waters are very generally recommended. Preparations of mercury, arsenic, antimony, lead, zinc, copper, &c., are much used. The preparations of iodine are now favourite remedies. Mercury is considered a specific in syphilitic and other chronic eruptions; arsenic is given in solution and pill (Asiatic pills); and lead, zinc, and copper, are used in lotions and ointments.

I may here observe, that the greatest caution is necessary in using arsenical preparations, as the digestive organs are often insidiously inflamed by them, the health injured, and life sooner or later destroyed. A vast number of internal remedies have gained popularity, as lime-water, sarsaparilla, burdock, scurvy-grass, hyssop, clivers, tar-water, &c. &c.; but of these the first and second are the best. They were formerly supposed to purify and sweeten the blood, or to act by improving the digestive and cutaneous functions. Blisters and irritants are sometimes employed in obstinate chronic cases, with a view of exciting a new action in the affected part; but they are rarely resorted to in this country. Ointments and lotions are used on the same principle; but these are generally ineffectual, as they are seldom properly applied. They are daubed over scabs, scurfs, &c. and seldom come in immediate contact with the diseased part of the skin. But if the skin be denuded by ablution, and the seat of the eruption placed in contact with these remedies, then benefit very speedily ensues, provided the general health is undergoing improvement at the same time.

—o—

INTRODUCTORY LECTURE TO THE

COURSE OF CLINICAL SURGERY,
NOW BEING DELIVERED AT THE HOSPITAL
LA CHARITE.

BY PROFESSOR VELPEAU.

Exposition of the present state of practical medicine—Difficulty of estimating facts—Immensity of false facts—Difference of conclusions drawn from them—Their application to the Medical Sciences.

THE commencement of each medical session, and the return of the season of study, naturally leads us to cast another glance on the course we mean to follow. For my own part,

having to teach surgery at the bedside of the patient, it is to clinical surgery that I should direct your attention.

And first, gentlemen, let me ask you what is clinical surgery? You would fall into a strange mistake, if you were to imagine that it is a separate science, or, properly speaking, a distinct branch of surgery; but you would be no less mistaken, were you to confound it with purely theoretical surgery, such as that which is taught without the hospitals. There, the diseases are classed, and systematically arranged, so as to be studied one after the other in all their details, without having the patient under your observation. Here, on the contrary, there is no previous arrangement; nothing factitious. Examining the patients before describing their diseases, the professor is obliged to take the facts such as they present themselves, and according as they present themselves. It is a symptom that occupies him one day; and a therapeutic effect the next. In some cases a single disease will suffice for a lecture; at another time, several will be required. The subjects under consideration sometimes lead to the discussion of general questions, more frequently to special ones, sometimes to pathological anatomy, sometimes to etiology, and to the nature of diseases, either in the same lecture, or in separate discourses, without regard to nosological arrangements, and of such a kind, that the details given always return to that fact with which they commenced.

Thus one subject as well as the other constitutes surgery: but that in the lecture-rooms, the rules laid down cannot be elucidated to you, except in the form of preparations or plates, the original of which must be sought for elsewhere. In clinical lectures, on the contrary, surgery is seen in a state of nature, deprived of a veil and isolated, such, in a word, as each of you will recognise it in his own practice. In the schools it is like a woman when dressed, who seeks to gain your good opinion; in the hospitals, she has no dress; her ornaments are left at the door; her natural beauties as well as her imperfections are perceptible. In fine, in the first case the picture is drawn beforehand, and often embellished by the painter; in the second, the picture is drawn from the original, and in a state of nature. Those who find fault with clinical surgery as being necessarily superficial, as not thoroughly examining any question, as recurring one hundred times to the same subject, and leaving a number of others in oblivion, have taken up a wrong idea. The object of clinical instruction is not, nor cannot be, to take in all subjects. In fact, it is from systematic lectures, from theoretical courses, that you should derive your scientific knowledge. Instead of superseding or rendering them useless, clinical studies refer continually to elementary studies. These two branches of science, instead of repelling, mutually strengthen each other; for clinical studies are, after all, only a check on specu-

lative notions by bedside observation, as a perpetual metamorphoses of theoretical principles to practical application. But, in truth, clinical surgery elucidates particular subjects. It is it that decides in the end all the most important questions of pathology. If many subjects are passed over, it is because they do not properly belong to this study, or that there are not means of treating them better or differently than they are taught in a regular course of pathology: or rather, clinical surgery becomes pathology, when it treats of subjects of which the examples are not under observation. As for repetitions, the professor of clinical instruction is really obliged to resort to them; but this is precisely one of the advantages of the study. Dwelling incessantly upon new facts, he may frequently revert to the value of such or such a precept. No surgical operation can be otherwise estimated. Besides, when rules are to be established, it is clinical study that must demonstrate them: or when a truth is to be demonstrated, so as to carry conviction to every mind, it is by the repetition of facts that we support it.

Clinical instruction, then, is a mode of teaching which does not supersede any other, and that no other can really supersede. Besides, each person is at liberty to think for himself, to apply his own method, or follow his particular predilection. It is bedside pathology; no other definition can be given of it. The picture is sketched in the presence of the original; but the colours are prepared beforehand by the organization, and the artist is to choose his brushes, his canvas, and his frame. Thus, gentlemen, you may expect to find in clinical lectures the same difference of opinions as in philosophical matters, or as in the other courses of study belonging to the medical sciences. The professors are in this, as well as in every science, humorists, solidists, vitalists, eclectics, empirics, with their systems, and favourite methods; some judging *à priori*, others *à posteriori*, each telling, according to his notions, what he is pleased to call his facts.

FACTS! Let us pause for a moment on this word; never has it been so much used as in these days. Facts are said to be the basis of every thing; without them no science is tenable. Yes and No, gentlemen: we may say of facts what *Æsop* said of the tongues that he had served up at the table of *Xanthus*. They are at once the best and the worst of all things! A fact is like a cipher, it carries with it its peculiar signification. Unchangeable in its nature, it seems at once past doubt; nothing can lessen its value. All our reasonings rest on facts. It is by referring to them that we explain the nature, the causes, the progress, the dangers, and the therapeutics of diseases. No person advances a step in the healing art without calling them to his assistance. There is not a physician who, even unknown to himself, does not make them the law of his actions. The mind cannot work

without them. The natural basis of all our determinations, they are indispensable to the solution of all problems; but thus, gentlemen, facts are the source of all our errors. Nothing can lie like a fact. Who has not understood them, a thousand times, different from what they really are? It is, if I may use the expression, because they are the greatest hypocrites in the world. They present themselves every day to our eyes, under the most deceitful appearances. They seem to court all those that approach them, and hasten to adopt the language most pleasing to each: from the time of *Hippocrates* to the present, they seem to wish to deceive all mankind. *Pinel* referred to facts to prove that all diseases commenced in the solids: they demonstrate, according to my opinion, that many affections commence from the liquids. In a certain hospital they would lead us to believe that antiphlogistics may prevent, or even cure, certain cancers of the uterus; while they intimate to me on another side that this is not true. They permit on one side the assertion of the cure of white swellings, the advantage of the amputation of the neck of the womb; on the other side they contradict it. Listen to their treatment of erysipelas: according to some, the best mode of treatment is mercurial ointments; another recommends sanguine emissions; a third, nitrate of silver; a fourth, blisters.—Facts would prove to me that all these practitioners are mistaken.

The public were led to believe, by the intervention of some surgeons, that lithotripsy was attended with scarcely any danger; having taken off the mask, they have avowed to me, in private, that this was a false fact; that, upon the whole, lithotripsy was little less dangerous than lithotomy. Facts have taught the English physician that purgatives are powerful antiphlogistics; whilst in France they consider this sort of medicament as the most frequent causes of inflammation. While they deny the specificity of syphilis among a certain set of physicians, they peremptorily demonstrate to me this specificity. After having convinced several physicians and surgeons that depletion was the only efficacious treatment in inflammations, it has pleased them to prove, to my satisfaction, that the best remedy for certain phlegmasiæ, even the most severe, will be found in the class of caustics, styptics, and irritants in general.

Judge, gentlemen, by what I have just related, how much reason we have to deprecate facts! To give you a just idea of their value, it has been said that facts are, in medicine, what money is in the commerce of civilised society. Of themselves they are every thing, and they are nothing. They are the materials, the instruments, that every one moulds and works according to his own views. As they lend themselves to every one, we may refer to them all the good and all the bad that science contains, though the fault ought definitely to fall on the person who employs them.

Nothing, in short, is more complex than

the question of facts. After they are established, we must interpret them. You can scarcely conceive, gentlemen, the numerous difficulties that these two points alone present. You will perhaps shrug your shoulders, when I tell you that a number of men even among those most honoured by society, are the least apt to propound facts in medicine. Nevertheless, nothing is more true. You are told that bleeding and leeches will cure angina: *it is a fact*. Well! it is not a fact, though it has been repeated for ages. A true inflammatory angina may last from six to twelve days; left to nature, it would not last much longer. It is by other means that we must stop its progress. What I say of angina is applicable to almost all pathological facts. A patient cannot pass urine, the sound is used; but the instrument is very soon stopped. The surgeon then concludes that there is stricture of the urethra; this is *a fact*. Nevertheless, this fact may be denied. The obstruction may be quite independent of a stricture of the urethra. A luxation, a fracture, or a necrosis, are very material and very palpable facts. But, gentlemen, do you think that it is always easy to establish their existence, that nothing could be mistaken for these facts?

If you seek in the autopsy the traces of the disease observed by you during life, do you think you will meet with less difficulty? According to one, you have in a vein, an artery, or the digestive tube, the effect of intense inflammation; it is *a fact*. Another will prove to you that *it is not a fact*. It will be the same with tubercles, or erosion of the cartilage, &c. The reason is, that in medicine and in surgery each fact is composed of several elements, and that the greater part of these elements are in their turn fugitive and complex, as is the fact taken altogether; and if the smallest part of this fact escapes you, it will no longer be the same; and you will be deceived in the conclusion you draw. Before we can positively assert *a fact*, we should have studied it very closely; and should possess a degree of intellect, which is not met with in every physician, nor in every age.

When we attempt to interpret facts, how many new difficulties do we not meet with! A pain is felt; one attributes it to inflammation in the eyes, another to neuralgia of the eyes, a third to an obstacle to the course of certain matters. Are the terms of heat, redness, and swelling more explicit? No, gentlemen, they are not. After death the mucous membrane of the intestines is found gorged with red livid fluids, the *fact is undoubtedly* there; but whence does it arise? Is it from inflammation, hypostasis, or imbibition? In a patient who has fallen on the shoulder, you prove, past doubt, there is crepitation; the fact cannot be denied, but does it arise from a fracture, from some inequality of the cartilages, from a deformity of the articulation, or from the friction of some of

the tendons? Who can flatter himself that he properly interprets facts with regard to therapeutics? They have been examined, listened to, and interpreted for three thousand years. So many of them have been collected, that science and its avenues are, as it were, encumbered with them. Nevertheless, which are the points of practice put beyond any sort of dispute by their testimony? Have they decided without any doubt a question relative to trepanation, to the best method of treating cataracts, fistulæ lachrymales, diseases of the ear, the utility of tracheotomy, the operation for empyema, of paracentesis, or the rules to be followed in the treatment of fractures, in the reduction of luxations, or in the performance of amputation? See into what dreadful confusion surgeons have been led by their interpretation, with regard to diseases of the eye, erysipelatous inflammation, the employment of taxis, and the operation for strangulated hernia? Yes, gentlemen, you must be aware, that the interpretation of facts has been at all times, and ever will be, the quicksand of therapeutics.

Whilst you are using some particular remedy, the disease progresses, and tends to produce a thousand unforeseen phenomena; a host of unknown actions at the same time operate on the organization; external agents incessantly re-acting on the whole, endeavour, on their side, to give a change to the results and the observable facts. A medicine being administered, if the state of the patient rapidly changes, we are sure to be gratified by it. Is the old proverbial expression, *post hoc, ergo propter hoc*, against which so much has been said, to be always the datum of our decisions. It appears to our understanding, under the form of a law which we repudiate, against which we incessantly defend ourselves; but on purpose, or without our doubting it, or in spite of ourselves, we always follow it. It is, in reality, that there is no other means of reasoning, the effect being necessarily preceded by the cause. The most common error is, that the effect is not referred to the proper cause. You have to treat a diffused inflammation, a rheumatism, or an orchitis; you treat these affections by the application of leeches, and the patients are cured in fifteen, thirty, or forty days. Yes, but how are you to be certain but that the patients would have recovered as quickly, simply by rest and regimen. If the progress and duration of each disease were as fixed and determined as the revolution of a planet, nothing would be more easy than to arrive at positive conclusions with regard to it; but as nothing can be more variable than the succession of morbid periods, as diseases which at first appear the mildest, may afterwards assume the most malignant forms; whilst those that at the commencement appear the most fearful, sometimes terminate the most favourably, it is almost impossible for a practitioner to avoid being deceived by a thousand different illusions, and led into continual mistakes. A

woman is seized the evening of her delivery with all the symptoms of intense metro-peritonitis. I prescribe bleeding and the application of forty leeches. The next day I find her out of danger. The interpretation of the fact is simple and easy; it was the result of the sanguineous depletion. Yes, but we learned that there had not been any leeches applied nor had the patient been bled! There is nothing in which this sort of confusion more frequently occurs than in therapeutics of ophthalmia. I shall give you one example out of a thousand. A man employed in grinding ceruse, came into the hospital with pretty severe conjunctivitis of ten days' duration. I employed the usual emollient lotions for three days, hoping that rest and the change of habits would be sufficient to cure his ophthalmia. His state being absolutely the same, I ordered on the fourth day a solution of the nitrate of silver to be dropped into his eyes. The next day we found considerable improvement. I thought myself obliged to attribute the change to the nitrate of silver. Well! the pupil in charge of the prescription had not applied it! The patient was not the less cured in three days after.

If all the honour, and all the sincerity possible; if the most ardent wish to discover the truth; if a calm and reflective mind does not prevent us from the false interpretation of facts; what can you expect, gentlemen, from men who judge before they have seen; who only look at facts through the medium of their prejudices or of their systems; who have their heads too hot, or their ideas too subtle to acknowledge that any thing could escape them, or to be convinced that the corner of the figure which they perceived was not the whole of the picture?

The natural philosopher, the chemist, the geologist, turn, return, divide, decompose, recombine, multiply, and reproduce the facts that they are investigating, until the interpretation is clear and invariable. The medical practitioner is obliged to wait for his facts, to seize them as they pass, and to be contented with the side that offers to him. He cannot, in general, either decompose them, nor reproduce them in order to appreciate them; he must reach them through so many different objects, that the cleverest in the end lose them. I do not exaggerate when I say that the field mingled with all possible coincidence, is the most obscure intricacy, the most inextricable labyrinth that can be imagined.

The object of these details, gentlemen, is to show you, that facts will often lead you into error; that you must receive them with caution; that it is easy for a teacher, if he wishes to deceive you, or if he be deceived himself, to make you admit them as he understands them; that in examining them you should be cautious, and be persuaded that some of their appearances may easily escape your observation; lastly, I wish you to understand that those who tell you that

facts are every thing, who talk of them incessantly, do not attend to what they say, and may lead you with themselves into false views, and into the highway of wanderings and deceptions.

To resume, facts are not science; they serve for the outline, and that is all. After having established and interpreted them, we must weigh them, compare them, and draw the inductions that reason may decide on.

Morgagni committed a serious error by saying, that *observations ought to be weighed but not counted*. It is probable that those who repeat this sentence every day, do not comprehend it. Whatever the facts may be, they should be carefully counted: that cannot be disputed. All circumstances being the same, a hundred facts are better than two. A single fact may be more conclusive than a hundred others, I know that; so is a piece of gold of more value than a hundred pieces of copper; but that is not the question. We want to know if a hundred similar facts, a hundred facts of equal weight, are not worth more than two, or than ten out of the number. It is only after they have been well established, well interpreted, each one separately well weighed, that it is useful to count them. When money is offered to you, first you make certain that it is the proper coin; you then ask if it is copper, paper, silver, or gold; then you try the weight, and the value of the gold; and afterwards you count the pieces. It ought to be precisely the same with regard to facts. When they have been proved, interpreted, weighed, counted with the precaution of separating them from any alloy, we should consider them *de novo*, to see what they furnish science, what we may expect from them, and how they should be employed, in drawing inductions.

Consider for a moment, gentlemen, how many things the mind has to review in this preparatory work, and you will find, I trust, that among the facts that are daily talked of in medicine, there are many that are useless; notwithstanding our superabundance of facts, it is not to be wondered at that we are still so poor in this respect, nor that science presents so many lacunæ for want of well attested, well interpreted, well weighed, well counted facts: it is to this point that our successors will probably spend their lives in verifying, establishing anew, by other facts, those very facts that we are now collecting, as we ourselves do at present with regard to those bequeathed to us by past generations; when once you understand these ideas, you can apply them to all the branches of medicine. Surgery cannot deny their truth, or rather they apply equally to it as to internal pathology.

(To be continued.)

Foreign Medicine.

Memoir of Dupuytren.*

WILLIAM DUPUYTREN, Baron, Chevalier of the Orders of the Legion of Honour and of St. Michel, was born at Pierre, Buffiere, October 5, 1778. His primary studies were pursued at the colleges of Ranal, Magnal, and La Marche; and he commenced when very young, the study of anatomy and surgery. At the age of seventeen he was appointed prosecutor at the *Ecole de Santé*, at Paris. From that period he devoted himself with ardour to the teaching of anatomy and physiology. Having attained the degree of doctor in surgery, he contended with M. Dumeril for the situation of *Chef des Travaux Anatomiques*; and though defeated at that time by one vote, he obtained the situation in the month of Ventose, in the year 9; when his competitor was transferred to the chair of anatomy. It was at this time that M. Dupuytren, having Bayle for his assistant, gave himself up to the prosecution of pathological anatomy, of his researches in which he has given an account in the "Journal of Medicine, Surgery and Pharmacy," edited by Corvisart, Leroux, and Boyer. On the 13th of September, 1802, M. Dupuytren obtained by concours the office of second surgeon to the Hotel Dieu at Paris. On the 5th of September, 1803, he was named assistant chief surgeon in that establishment; and at length surgeon in chief on the 9th of September, 1815. A very brilliant concours, and one of the last which were held respecting the chairs of Professors in the Faculty of Medicine, placed him in the chair of Sebatier, February 15, 1812. M. Dupuytren is first surgeon to the king, member of the Academy of Sciences, of the Royal Academy of Medicine, &c.

Could I have dispensed with the following notice of M. Dupuytren, it would have been to me a great relief; for it occasions me considerable embarrassment. I am sure of exciting dissatisfaction. That M. Dupuytren has many failings, I will not dispute; for like other men, he was endowed with passions at his birth; but that is of little consequence to his patients. I know that complaint is made (and with some reason) of his not being a sociable colleague; that he aims at surgical omnipotence; and that there is a certain despotic inflexibility in his manners. It would be painful, however, for me to speak of this. I can still more readily believe, that he has shrewdness enough to see that talent alone is not a sufficient recommendation with the dispensers of patronage; and that he is a sufficiently skilful diplomatist to cause his merit to be properly rewarded. But where

* is the evil in all this. It is a reproach, which is only offered to those who succeed; for they only are exposed to our view. But, those who are distanced in the race, are often nothing more than vanquished blunders, struggling to escape the shame of defeat. When persons well or ill intentioned and informed, come to whisper accusations of all kinds, I listen to them; for that can do no harm; but I hardly like to let the public into the secret of things spoken into the ear. I shall endeavour, by and bye, however, to say what I think of M. Dupuytren, considered in this point of view; and hope to reconcile things which are sometimes much at variance—justice, propriety, and truth.

Should I, as is very probable, be accused of partiality, I avow unreservedly my opinion that M. Dupuytren is a surgeon of the highest order; I know not that in France we could, with any prospect of success, look for his rival. The public voice accords to him this position. It is not I who place him there; for it is there I find him. I would not frame a panegyric; but I state a fact; and I say that the reputation of the Professor at the Hotel Dieu, is the highest in our country. Is it deservedly so? I think it is; and I shall proceed to substantiate my opinion.

M. Dupuytren is a surgeon and chemical professor; and I have to speak of him under this double aspect. The art of surgery, in the opinion of most people, is only the art of performing operations. With them a great surgeon is a man whose talent is at the end of his fingers, like that of a pilferer; from which it follows that they do not understand the art, but debase it. Physicians long thought the same; and this foolish opinion was the cause of the long inferiority of surgery, with respect to the other branches of medical science. To-day it is otherwise; surgery occupies the rank it ought to maintain. A surgeon is a medical man, who occupies himself particularly with what are called *external* maladies; or, in other words, those which the hand can touch, or the eyes perceive directly; and who, in order to cure them, employs all the methods he may think requisite, but especially those which are called operations.

M. Dupuytren appears to me equally superior in all the parts of this difficult art. He has an admirably precise *coup d'ail*; a steady hand; a *sang-froid* equal to every emergency; and that innate tact which is required in every art. A physician and a surgeon are born, as well as a poet or a painter. At seventeen years he was honourably named to the situation of prosecutor at the *École*; whence it is evident, that almost from his birth, he had a decided predilection for a surgical career; a career which he ran with success, because he entered on it with ardour; for we only do well that which we like to do. From his

* Translated from the *Médecins Français Contemporains*, 1827.

rst essays in practice, till his arrival at the eminence where we now behold him, and during the fifteen years passed at the Hotel Dieu, he has seen an immense number of facts of every kind; and has been able, better than one less favourably circumstanced, to study and improve his profession. Favoured by a fortunate position, and practising in so large a theatre, the habit of seeing and doing, has given him (among other qualities we shall have to mention) the talent of discovering the disease in its proper situation and extent. In fact, that which particularly distinguishes this practitioner, in my opinion, is his diagnostic skill; and diagnosis is sometimes as obscure in surgery as in medicine. The maladies are not, and can not be *external*, speaking rigorously. There is nothing really external in the human body, but the cutaneous surface. All the affections which come under the surgeon's care, are more or less difficult to make out well; because they are often concealed in the depth of some cavity; such as the uterus, the bladder, the nasal fossæ, the pharynx, &c.; because, though partly visible, their origin is farther off. In an articulation, for instance, the origin may be in the interior of the bones. The consequences of an error are serious, and sometimes irreparable.

It may thus be judged how ridiculous and exaggerated is the idea of the certainty of surgery, if we apply it to diagnosis. We see, it is said, and we touch; but what do we see and touch most commonly? Symptoms, and not the disease itself; symptoms upon which the mind deliberates, and at last decides. Now M. Dupuytren is particularly remarkable for the certainty of his diagnosis. It would be difficult, I believe, to carry it farther. He observes with attention, but quickly; rarely undecided, he judges with promptitude. Arrived at the bed of the patient, his five senses are on the alert; and after some minutes of questions and investigations, his examination is finished. It might be often thought that he had cast only a hasty glance at the patient; but his lecture proves that he has seen all, and seen well. In a case in which the student or young practitioner would see nothing remarkable, he points out a number of interesting circumstances, and deduces from them numerous consequences, for all of which he gives a reason. I have heard very few medical men interrogate a patient with so much intelligence and point. His questions have always an end in view; and the answers generally serve to strengthen his diagnosis. I have rarely seen him mistaken, either with respect to the nature and seat of the affection, or as to the probable issue, and the effects of the therapeutic agents employed. Nor let it be supposed that these decisions are not precisely formed, or are vaguely expressed, so that they may, like the ancient oracles, be applied any

way. It is thus many practitioners act; but, on the contrary, I have been astonished at the care, and especially the assurance, with which M. Dupuytren enters into the most minute details as to facts which exist only in futurity. He describes a pathological alteration, concealed as yet in the recesses of organs, as if he already saw it; and when the scalpel has dissected and laid it bare, the truth of his description is made apparent to every one. Whence comes this art of diagnosis, so useful and so brilliant? It is owing to the habit of seeing diseases, and especially to that mental faculty which Spurzheim calls *comparative sagacity*, and Gall the *power of induction*. People sometimes speak, and I have spoken myself, of medical instinct. It is probable this instinct is only rapid calculation.

Is M. Dupuytren never in error? There are some who have made that absurd declaration without believing it themselves; but my own observation has satisfied me that he is sometimes mistaken, which does not surprise me, nor ought it to surprise any one else. It is said he once performed the operation of lithotomy on a patient who had no stone in the bladder. He had sounded several times; he had ascertained the presence of a calculus; he had heard, and made the spectators hear, the shock produced by the sound striking on the foreign body. Well, this body so well ascertained, did not exist after all. I have often heard this fact mentioned; and it is very freely repeated, because it is a great satisfaction to find a colleague in fault; but it only proves that any error is possible in diagnosis, even in the case of the most experienced practitioners. The same thing happened to Cheselden, to Desault, and twice to M. Roux, who avowed it with a candour which did him honour. M. Dupuytren is not equally frank. If we consulted only the declarations he thinks it convenient to make to the public and his students, we should believe him infallible. So overweening is his ambition of superiority, that he exercises extreme care in concealing not only his serious errors, but the slightest inexactitude. A reproach, however insignificant, and whether merited or not, appears to him to overthrow his reputation for ever. I shall return to that particular of his tactics.

On a good diagnosis depends the indication, and the method of fulfilling it; and M. Dupuytren is not less talented in curing surgical diseases than in discovering them. There is no part of his profession which he has not thoroughly explored, and into which he has not introduced some alteration, more or less beneficial. Without aiming at a complete enumeration, which would occupy too much space, I do not fear the charge of exaggeration in saying, that very few surgeons have evinced so much surgical talent in the invention of modes of operating, and

so much ability in their execution. The *Dictionnaire des Sciences Medicales* contains a list sufficiently long, but still incomplete, of the inventions or improvements due to the genius of M. Dupuytren. It mentions in particular the application of blisters in phlegmonous erysipelas, the most rational theory of certain inflammations, such as *faruncle* and *anthrax*, together with the mode of treating them by long and deep incisions; the determination of the different degrees presented by burns, a division which is a little arbitrary, but which is not without advantage as regards treatment; the modification introduced into the Foubert's operation for *fistula lachrymalis*; the invention of a new proceeding for the cure of *grenouillette*; of researches into the different kinds of cataract, and the invention of a needle for performing the operation of depression; the amputation of the body of the inferior maxilla, and a new mode of amputating limbs at the different joints; some excellent observations on the ligature of arteries, and the danger of ligatures *in reserve* in the operation for aneurism; the invention of a new proceeding, and of a new instrument, for the cure of artificial anus, by taking away the partition which separates the two folds of intestine; an invention which M. Richerand attributes, but without sufficient proof, to Dr. Physick, of America; and some very ingenious observations on callus, and the luminous consequences he has thence deduced in the treatment of fractures. We may add to this, that no practitioner has better understood the theory of fractures, or has employed more sagacity in the contrivance of apparatus for favouring the re-union and consolidation of the bones. He endeavours to attain that object by the most simple means, and he has often succeeded by placing the limb in a convenient semi-flexed position. He has contrived for fractures of the fibula and radius, apparatus, on the subject of which a writer has been very inappropriately facetious, because it is very ingenious and very useful. Among these works, and among those which it would be too long to enumerate here, there are several of which the first idea did not originate with M. Dupuytren; although, in his lectures, he gives as his own the slightest peculiarities in his practice. The bilateral operation for the stone, for instance, of which the advantages are very much exaggerated at the Hotel Dieu, was described and practised some years before M. Dupuytren, by Chaussier, Ribes, and Beclard. This is a fact known to every one. M. Dupuytren has the merit of having raised the operation to honour, by his example and operative dexterity. The double lithotome of which he makes use, resembles so strongly the instrument of Flurant, that I am induced to believe it is the same. But in spite of all his borrowings, partial or complete, I do

not believe there can be found in France a practitioner so rich in practical contrivances, and to whom surgery is indebted for so many useful and novel methods of procedure. Pathological anatomy owes him, perhaps, not less than surgery. M. Dupuytren was one of those who established that science in France. The subsequent labours of Bayle, of Laennec, of Broussais, and of Andral, have added much to our stores of knowledge; but the first impulse was given by M. Dupuytren. He has, in a very eminent degree, a creative and inventive faculty, and knows, with admirable foresight, how to modify general methods of practice, according to the particular cases of individuals.

As an operator he possesses a combination of those valuable qualities, which are all more or less necessary, but which are only met with in the great masters of the art. From having been long accustomed to see the blood flow and the patient suffer, he has acquired an imperturbable *sang froid*, and an unshaken self-possession. The most unexpected accidents never disconcert him; and it is especially in these unlooked-for occurrences that he exhibits all the resources of his talent. He is then seen to struggle with obstacles; to seize with alacrity the new indications which are presented, and to contrive, on the instant, means for fulfilling them. Is there nothing here but good fortune, or instinct as we call it? It might be thought so; but when the operation is terminated, we are astonished at hearing him dilate at length upon what has just taken place, with a method and order of detail which are remarkable. He explains the motives of what he has done, with as much precision as if he had weighed and elaborated the subject in the silence of his study. He indicates the various methods which might have been employed; together with their respective inconveniences and advantages; and justifies his conduct by practical examples and solid reasonings. We are then convinced that he has done nothing at hazard; but that, on the contrary, he has reflected, deliberated, and calculated much; and that he has not come to a decision at last, but on substantial grounds; although for all this only a few minutes have been necessary. I have been witness to facts of this kind; and I confess the art of healing has never appeared to me more grand, and more worthy of admiration, than on these occasions.

M. Dupuytren performs all the ordinary operations of surgery with ability; but in this I see nothing that ought to surprise us; for, in the hospitals of all the great cities there are operators who can amputate a leg or an arm well, extract a calculus, or extirpate a tumour in a satisfactory manner. Much less ability is required for all this than is generally imagined. So far as regards manual dexterity and agility of motion, the

professor at the Hotel Dieu is not without rivals; and there are some who are even his superiors in that respect. M. Roux, for example, is more adroit, taking this word in its purely mechanical acceptation. He has also incontestibly more grace and vivacity. We are not to conclude from this that he operates better, but simply that he has more freedom and ease in his movements, though they may not be more sure. If it were allowable to regard a surgical operation only as a spectacle, and the surgeon as an artist performing his part, I should give the preference to M. Roux over M. Dupuytren, and all the surgeons of Paris. But in my opinion, the art of surgery is far from consisting entirely in the application, more or less adroit, of cutting instruments. It consists especially in the diagnosis of diseases; in the appreciation of indications; in practical experience; and in all these respects I place M. Dupuytren in the first rank.

Frere Jacques used to say to the patients whom he had just cut for the stone—"I have operated, but God must cure you." Surgeons no longer speak in this manner; but they act in accordance with it. The success of an operation is in a great measure dependent on the care and the subsequent treatment to which the patient is submitted. In this respect also M. Dupuytren evinces the same superiority in his practical views. He never operated without having submitted his patient to an appropriate regimen, and without having satisfied himself that his general health will not materially suffer from the operation. He also appears to me to be a sufficiently good physician in treating the affections which ordinarily complicate traumatic injuries. I say a *sufficiently good*, not a *perfect* physician; for in this respect I do not consider him completely beyond the reach of censure. The greater number of surgeons, indeed, are to blame in this particular; allowing themselves to be governed by rules which are too mechanical. M. Dupuytren is one of those with whom this defect is least apparent.

—o—

CHARTER TO THE LONDON UNIVERSITY.

The noble opportunity for the Government to exalt itself in establishing Freedom in regard to Educational Honours, considered in a Letter to the Right Hon. T. S. Rice, Chancellor of the Exchequer, &c. &c.

[The following letter is in accordance with the independent and philanthropic views which its author delivered before the Westminster Medical Society, against granting a power to confer Degrees on the London

University, or any other London School of Medicine. It will be perused by every liberal member of the profession.—ED.]

Honourable Sir,—When Vice clothes itself in the garb of Virtue, she is the more dangerous, because more difficult of detection; and hence, sometimes even the good embrace her, without being aware—until the consequences of the embrace become apparent—of the hideous being they have acknowledged. MONOPOLY often attires itself thus; to the hatefulness and the injuriousness of which, the Government, of which you were and are a member, have testified by the measures they have, in the various sessions, brought forward, to destroy, or at least to mitigate, the evils of some of the most extensive monopolies. Every unbiassed mind, looking upon these proceedings of the Government, has come to the conclusion, that the necessity is seen, on the part of the MINISTRY, to abolish all monopolies, so far as such abolition can be effected with safety.

One monopoly, that stands most in need of abolition, is exhibited by the Universities of Cambridge and Oxford. These Universities exclude all save those of a *particular creed*; and thus make the honours of literature and of science to depend, not upon a man's *talent*, but upon his *religious opinions*. The atrocity of the monopoly thus created, is now generally felt; and a universal cry for an abolition of the unsalutary power perpetuating this monopoly, has been raised throughout the kingdom. To that cry it has not been possible, on account of the peculiar constitution of Oxford and Cambridge Universities, to pay any effectual regard.

What has happened? The evil is felt. Individuals, not content to wait till the removal of the evil shall be effected through the influence of public opinion acting upon the House of Commons, and, through that house, on the House of Lords, determined to realize the privilege of obtaining the power of conferring *Honorary Degrees*, without the degrading condition of submission to a *particular creed*. These individuals, instead of going to the LEGISLATURE and demanding that an UNIVERSITY should be established within the METROPOLIS, combined together, and, by subscribing for certain shares, constituted a *large proprietary* of shareholders, who determined to raise an edifice, which, with its adjuncts of teachers, should be called, *The University of London*.

The building was raised; the teachers were appointed; and the system of instruction commenced. Forthwith an attempt was made to obtain a Charter, not merely of *Incorporation*, but for *giving Degrees*.

It seems, moreover, from the nature of the motion of Mr. Tooke, in the House of Commons, on March 26, 1835, that a Royal Charter of Incorporation had been drawn up, and approved of, by the Law Officers of the Crown, in 1831.

Now, Sir, What would have been the consequence of giving such a Charter* to the London University? What but the establishing another monopoly—a monopoly of teachers!

The proof is easy. The object of a College, and of all schools, is to *teach*. The skill of the teachers, and the means possessed for the manifestation of that skill, ought to be the only grounds upon which any pre-eminence can be claimed. Each teacher becomes interested in communicating scientific truth in the most clear and comprehensive manner. There is a beneficial, a scientific rivalry, pregnant with advantage. But, if there be any exclusive advantages possessed by particular teachers, what is the consequence? To render this apparent, take two lecturers, A. and B., both of whom are equally talented. They make known that they lecture. They are equal in talent to instruct, and in the possession of means for instruction. Those anxious to be instructed, hear of their intentions, and determine to place themselves under their instructions; some under A. and some under B.; but, by some contrivance, B. has managed to obtain a peculiar, an exclusive advantage, namely, that *his* pupils will be enabled, by attending his lectures, or teachings, to obtain a *degree*—which A.'s pupils *will not*. Does it not follow, that *plus advantage*, added to *equal talent*, must give B. an injurious superiority? And, in addition, does it not follow, that this superiority must be injurious to A.? And, is not the possession of such a superiority, a manifestation of the exclusive principle—a monopoly of the worst character?

Such a monopoly would have been established, had the London University obtained the Charter, which they sought. But they would have obtained a monopoly of a more glaring character, had the Charter sought for been granted.

The ACADEMICAL SENATE OF Professors would have been the *examining body*. The Professors, or the Teachers, would have examined *their own pupils*.

It is true, Sir, that the plan proposed by the Government, obviates the *latter* evil. And, in this view of this important matter, every enlightened mind must agree with Mr. Hume, that the "Government is in the novel position of taking the lead of them"—the proprietors—"in the general liberality of the plan."

What, then, is proposed by the Government? It may be stated thus:—

I. *That a Board of Examiners, to be termed THE UNIVERSITY OF LONDON, shall be authorized by Charter to confer degrees.*

II. *That pupils from the London University and King's College, shall be admitted to Examination; and,*

III. *That any other Bodies for Education, whether corporated or uncorporated, may, from time to time, be named by the Crown, and their pupils be admitted to Examination for Degrees.*

Such are the intentions of Government; intentions indicative, evidently, of the fact, that *Degrees* are to be conferred upon the prosecutors of every department of learning and of knowledge, divinity excepted.

To this, no liberally-minded individual can object. But, in developing this intention, one circumstance occurs, which mars the beauty of the plan. It is this: that while "The University" can confer all Degrees, save those on Divinity (an excellent exception), the individuals, on whom these Degrees are to be conferred, are not *all who may be qualified by their learning and knowledge*; not all who have laboured hard to acquire every necessary information; but those only who have been educated at "any chartered College within the metropolis."

Now, Sir, is not this giving a positive monopoly to the teachers in chartered Colleges? Is not this as much as asserting that the education of students is better within the walls of a chartered College than within the walls of any other building?

Is not this a species of *intellectual consecration* of bricks and mortar? Is not this a sacrifice to the god of wealth, because the largeness of the building seems to have some weight in the matter? Finally, Sir, is it not saying to those beginning their studies in London, Gentlemen, go to the King's College, and to the London University—become pupils there; for there you will have talented lecturers, and there, in addition, you will be able to gain honorary Degrees?

But, Sir, it may be said, that the Government plan is not so exclusive as this; for it is expressly stated in the communication from Downing Street, August 19, 1835—"Any other bodies for education, whether corporated or uncorporated, may, from time to time, be named by the Crown, and their pupils be admitted to examination for Degrees."

But, Sir, it is stated in the preceding clause, that a particular class of pupils is at once admissible to examination for degrees—"Pupils from the University and King's College to be admitted to be examined."

Here, sir, at once a priority is given to these educational bodies over other schools. And why? Are they better teachers at these thus styled colleges, than at other schools? Personal comparisons would be invidious; and, therefore, should be avoided. But it may be asked without fear, is the education at either of these institutions superior, in reference to the production of *real qualification for medical practice*, to that given at the private schools, as they are called?

Let, sir, an application be made to the examining boards of the Apothecaries' Company, and of the College of Surgeons, and

* This Charter included the power of giving medical degrees.

let a report be presented from each body of the pupils, *passed or rejected*, as belonging to the individual schools, and I, myself, as a private individual lecturer, am quite willing to abide by the result, as a testification of the nature and of the sufficiency of medical education as given at the private schools.

Is it then just, sir, that the pupils of any one institution, or of any institutions, should have the priority given to them of starting in this *intellectual race* for intellectual honours in advance of the pupils of other institutions?

I sincerely believe, from various sources, that it is the wish of the government to act in this matter with the greatest fairness; but is it not apparent that selecting the pupils of the London University College, and of King's College, is giving an undue priority?

It may be asked, *What, then, do you propose?*

I propose, sir, that the government of this country, recognizing the grand truths, that *science has no country; that scientific men have generally been those who have received no aid from collegiate education*, should declare, that

LITERARY AND SCIENTIFIC HONOURS SHALL BE OPEN TO EVERY INDIVIDUAL WHO CAN PROVE HIMSELF QUALIFIED TO POSSESS THESE HONOURS.

And, that, in addition,

THESE HONOURS BEING GAINED, THE INDIVIDUALS GAINING THEM, SHALL HAVE EVERY LEGAL PRIVILEGE CONNECTED WITH THE QUALIFICATION.

For, sir, in regard to the latter point, it would evidently be absurd to give an honorary degree, as *indicative of qualification*; and, then, afterwards to require the qualified to pass another ordeal, previous to the realization of the benefits of such qualifications.

It is true, sir, such a plan would require the sweeping away—many, in the *present state of society*, scientific, or rather *pseudo-scientific* NUISANCES; but the gain would be immense—the loss would be nothing.

And, sir, what a noble memento such a majestic proceeding on the part of the government would be of that government—what a pleasurable satisfaction would arise in the mind of yourself—a member of such a government, in contemplating the fruits of such a purpose! And, finally, what a thought to console on leaving this world—"I have been an instrument in removing a mighty barrier to the diffusion of education and enlightenment among the people."

Trusting, sir, you are capable of appreciating the high behests connected with the government on this important question,—I have the honour to remain, Right Hon. Sir,

Your obedient servant,

JOHN EPPS, M.D.

Lecturer on Materia Medica and Chemistry, and Director of the Royal Jennerian and London Vaccine Institutions.

London, Dec. 17, 1835.

DUPUYTREN'S CLINIC.

Hæmorrhoids.

Two kinds of hæmorrhoids have for a long been recognised; the one *internal*, the other *external*. So long as the hæmorrhoids have not degenerated in their structure, so long as they do not give rise to hæmorrhage, or to abundant discharges of sero-purulent fluid, throwing the patients into a state of profound and characteristic anemia, the excision of these bodies is not advisable to remedy the accidents, or rather the inconveniences to which they give rise. Antiphlogistics effectually dissipate them. But when the life of the patient comes to be either nearly or remotely threatened, when the inconveniences are sufficiently great to require prompt attention, or when the hæmorrhoids have undergone a process of degeneration, antiphlogistics are not sufficient, and no other means but excision, according to M. Dupuytren, can be employed with success. It is to these degenerated hæmorrhoids, which require prompt and bold treatment, that the present article relates.

We have already observed that there are two kinds of hæmorrhoids, internal and external, which may or may not exist together. They form a chain of tubercles disposed in a circle, either without or within the anus, and this arrangement has acquired for them, from M. Dupuytren, the name of *hæmorrhoidal pads*. The external hæmorrhoidal pad is formed of a circular range of soft and roundish tubercles, of a brown colour externally, where they are covered by the skin, and of a bright red colour internally, where they are enveloped by the mucous membrane. Rarely ulcerated on their external surface, they are frequently so on their internal, and give rise to hæmorrhages more or less abundant, and to purulent discharges, which tend to weaken the patient.

The *internal* hæmorrhoidal pad, situated within the anus, is often strangulated by the sphincter, in consequence of its becoming swollen, or by the protrusion of the lining membrane of the rectum. It gives rise to the same unpleasant consequences as the former, and is known by the bright red colour of the tubercles. The two varieties, as we said before, sometimes present themselves at the same time in the same patient.

Individuals afflicted with the latter species (the *internal*), walk the streets with difficulty. Arrested every now and then by the severity of their pains, they may be seen either to carry their hands to the part affected, or sitting down on a post or projecting stone, in order to make the hæmorrhoids re-enter the anus. But these expedients afford only a temporary relief, and a return of the pain quickly follows a new escape of the tumours.

More or less reduced by the abundance and frequency of the hæmorrhage, or the

flow of sero-purulent matters, the patients become thin, their skin is pale, and they have the appearance of persons worn down by other hæmorrhages, or abundant suppurations. They often fall into a state of sadness, and even of profound melancholy. Their intellectual faculties are weakened, and they are often known to attempt their lives. All this while the local degeneration is making progress; a cancerous affection of the anus, and of the inferior part of the rectum, declares itself, and the death of the patients will be the end of this progress, or of the abundant flux, if these unfortunate tendencies be not efficaciously opposed. Excision is here the only means of effecting this. Let us first speak of the mode in which it ought to be performed, and then of its inconveniences, its dangers, and the means of avoiding them.

When the diagnosis has been established, and the excision decided on, we lay the patient on his side at the border of the bed, the legs extended, or, better still, the one bent forcibly on the thigh, the other stretched out. If the tumours be *external*, we desire the patient to make strong expulsive efforts, and by this means the piles are forced out. They are seized by pincers with broad points, while an assistant separates the buttocks, and are excised by means of curved scissors. This mode of proceeding offers very little difficulty.

The excision of *internal* hæmorrhoids is more difficult. In order to bring them to the exterior, so that they may be removed entire, the patient ought to have the buttocks immersed in a warm bath, and should be directed to make violent efforts at expulsion. As soon as the tumours appeared externally, the patient should be quickly laid on the bed, in the position recommended above; and the operator, promptly seizing the excrescences, should excise them altogether, without giving them time to re-enter.

Before the operation, M. Dupuytren is accustomed to prescribe a gentle laxative and an enema. We shall see by and by what are the reasons for this precaution.

The excision of hæmorrhoids is not exempt from inconveniences, neither is it without danger; but these inconveniences are little to be dreaded, and the dangers may be happily prevented. Nevertheless, two patients died from hæmorrhage following the operation; one in the hospital, the other in the city. The danger consists entirely in this hæmorrhage which may follow the excision. In the case of *external* tumours the blood is effused outwardly; the hæmorrhage is immediately perceived, and may be easily arrested by cauterization. It is also to cauterization with a heated iron that we ought to have recourse in the case of *internal* hæmorrhoids; but here the application of the cautery is more difficult, and the hæmorrhage may be more easily overlooked. That which reveals it to an attentive and enlightened surgeon, is a feeling

of heat which the patient experiences in the abdomen, and which appears gradually to increase in proportion as the blood accumulates in the intestines. To this may be added the greater weakness of the patients, his more pallid countenance, the smallness of the pulse, a cold sweat over the body; in fine, all the symptoms of internal hæmorrhage.

When once this accident is discovered, we must hasten to get rid of the blood contained in the intestines, either by desiring the patient to make expulsive efforts, or by a cold injection. By these efforts at expulsion the wound is always brought into view, and then M. Dupuytren employs what he calls a *haricot cautery*. It has, in fact, the shape of a bean, having a little stalk fixed at one end into its umbilicus, and at the other united at right angles with the handle. By means of this instrument he cauterizes the place where the jet of blood issues. This is always effectual in arresting the hæmorrhage; and M. Dupuytren has never seen any dangerous effect follow. Whenever he operates in private practice he takes the precaution of leaving with the patient an intelligent assistant, who, at the first symptom of hæmorrhage, external or internal, applies the cautery, and precludes all danger.

Another, but a less effectual way of arresting the hæmorrhage, is to introduce into the rectum a pig's bladder, which is afterwards filled with charpie. Although this method succeeded in the first case in which he tried it, M. Dupuytren found it objectionable, from the great inconvenience which patients experienced from it, and the apparatus was almost always expelled by the efforts provoked by its presence.

The other accidents which sometimes attend the excision of the hæmorrhoids are much less serious and alarming. A considerable swelling of the cellular and adipose tissue of the anus constantly takes place, the principal inconvenience of which is the impossibility experienced by the patients, for four or five days, of going to stool; but the laxative and the injection by which the bowels were cleared out before the operation, and the abstemious diet to which they are restricted, render the necessity less pressing, and retard an evacuation a few days without inconvenience. The tumefaction may also give rise to a retention of urine, but for that we possess very efficient remedies. The tumefaction itself may be combated by the application of leeches. The operation of the caustic is always limited to the place to which it is applied, and M. Dupuytren has never seen the inflammation spread to any distance over the coats of the intestine.

The pain produced by the operation is sharp, but almost momentary; and this inconvenience, inseparable from the slightest operation, cannot be put into the balance with the pain and danger of the affection.

The superintending care of the surgeon

ought not to be confined to the time of the operation, and of the cauterization of the wound. The patients are exposed to other dangers, from which it is in his power to shield them. We have already said that patients affected with degenerated hæmorrhoids are reduced to a state of profound anemia, a state of asthenia produced by the abundance and frequency of the hæmorrhage, or of sero-purulent discharges. These evacuations, to which the patients have for a long time been habituated, cannot be suddenly arrested without their cessation reacting on the whole economy. A state of general plethora is produced, congestions of blood take place in the lungs, the liver, the brain, &c., and organic affections of these organs may supervene. The patients frequently fall into a state of alarming insensibility. The arteries beat with such violence, that we should be led to suspect the existence of aneurism, if these anomalous pulsations did not change every instant their situation and strength.

If the patient be young, vigorous, and plethoric, and if the discharges *per anum* be of a sanguineous character, bleeding at short intervals should be practised for some time. If the discharges be of a purulent nature, an issue may be established, or the cautery applied to a neighbouring part; or, if the case be urgent, both these means may be employed at the same time. Such are the most likely remedies, and such is the most rational prophylactic treatment of a plethora, the existence of which exposes to very great danger.

With respect to *external* hæmorrhoids, when once their excision has been performed, the cicatrix which is produced, either by the constriction of the sphincter itself, or the tension of the integuments and the radiating folds of the anus, is in general sufficiently effectual to prevent the protrusion of the *internal* hæmorrhoids, and we may then dispense with the excision of the latter. This excision, however, like that of *external* hæmorrhoids, is in general not followed by a return of the disease, and the patients are for ever freed from their malady.

The first of the following cases is that which has furnished the text for the preceding observations. It is followed by several others cited by M. Dupuytren, and by one which we observed, a short time ago, at the Hotel Dieu.

CASE I.—The patient was a man, from 36 to 40 years of age, thin, and of a bilious temperament; weakened by frequent and abundant hæmorrhage from the anus. The hæmorrhoids were external, and were removed without difficulty, by a few cuts of the scissors. No hæmorrhage followed the operation, but considerable swelling took place around the anus. The only inconvenience of this, was a suspension of the fecal evacuations; but the patient had taken a laxative the day before the operation, and on the morning of the day itself, an injection

had been administered and returned. Abstinence, with the application of leeches and emollient, sufficed to moderate the irritation. The tumefaction has diminished considerably; and the patient may be considered as cured.

CASE II.—About twelve years ago, a very rich banker, at Paris, of a bilious temperament, about 45 years of age, and for a long time subject to hæmorrhoids, had copious discharges from the anus; in consequence of which, he had been gradually reduced to a state of very great weakness and anemia. Pale and dropsical, he became daily more emaciated, and incapable of mental exertion. To write a letter, was a fatiguing, and almost impossible undertaking. M. Dupuytren having been called in, examined him, and detected the existence of internal hæmorrhoids. He proposed their excision, which was promptly acceded to. It was the first operation of the kind that the surgeon had undertaken. An injection having been given and returned, the patient first took a hip-bath, and then lay on the edge of the bed, with the thighs held assunder. Violent efforts at expulsion caused the protrusion of the hæmorrhoids; which was seized with broad-pointed forceps, and entirely removed (not without difficulty) by means of curved scissors. There was no *external* hæmorrhage; but M. Dupuytren did not quit his patient, who, in about a quarter of an hour, grew pale, and became weaker and weaker. The pulse was small and hard; a cold sweat covered his body; and he felt in the abdomen a sensation of heat, continually mounting higher and higher. From these symptoms, M. Dupuytren could not mistake an *internal* hæmorrhage. He immediately desired the patient to make efforts at expulsion, and a great quantity of blood, scarcely congealed into clots, was discharged. Cold injections were tried without success; the flow of blood was not arrested. A pig's bladder was then introduced into the rectum, and stuffed with charpie. This contrivance succeeded perfectly; and it was not without great difficulty that the bladder could be maintained in its situation, in consequence of the involuntary efforts which constantly tended to displace it, and which did displace it several times.

The hæmorrhage which occurred here, very much weakened the patient, retarding very much the convalescence; and might have proved fatal, had it not been promptly arrested. He has since had no return of the affection, nor any interruption to perfect health.

CASE III.—The brother of the banker to whom the last case relates, was affected with the same disease. He lived at Berlin; but having heard of his brother's recovery, and a similar state of weakness having come on, M. Dupuytren was consulted by letter. From the report of the celebrated surgeon who attended the patient, he could not

doubt the existence of hæmorrhoids and recommended their excision. But the accident which had happened to his former patient, had led him to contrive a method of arresting the hæmorrhage at once, and thus obviating the only danger which can accompany that operation. He therefore wrote the rules to be followed; and recommended, if hæmorrhage should follow, cauterization with the bean-shaped iron.

The surgeon at Berlin paid no attention to this advice: immediately after the operation he left his patient. Shortly after he was gone, symptoms of internal hæmorrhage supervened. Paleness, and a cold sweat came over him. One of his younger brothers, who had witnessed the first operation, recognized the mischief and its cause. They ran for the surgeon, but were not able to find him. Time now was pressing, and the danger imminent; when the young man had the presence of mind to introduce a pig's bladder into the rectum, as he had seen done in the former case. He filled it with charpie, and thus, happily succeeded in arresting the hæmorrhage. The loss of blood, however, had been so great, that the patient was a long while in recovering.

CASE IV.—In the month of last December we saw, in the Hotel Dieu, a similar case, which we think may be usefully detailed in connexion with the preceding. The patient was a young woman, who had for some time been a prey to sharp pains in the region of the anus. She was pale, weak, infiltrated; and had, in fact, all the appearance of a person reduced by frequent and abundant hæmorrhage. There was a considerable eversion of internal membrane of the rectum, and a very large hæmorrhoidal tumour strangulated by the anus. After several days of repose and low diet, baths and emollient applications having been at the same time employed, the tumefaction was lessened, the hæmorrhoid was reduced, and it was determined to free the patient from it by excision.

The patient, lying on the edge of the bed, with the limbs well separated by assistants, she made (as directed) considerable expulsive efforts; in spite of which, however, whether from rest having diminished the swelling, or from the weakness of the patient, the size of the protruded parts was not very considerable. M. Dupuytren then caused three assistants, each armed with forceps, to seize three different points of the tumour, which, together with the everted portion of the mucous membrane of the rectum; he was thus enabled to excise. But little blood was lost during the operation. It was of an amaranth colour, and resembled that which is found in persons weakened by hæmorrhage. No jet appeared; and it seemed possible, therefore, to spare the patient the pain of cauterization; taking the precaution, however, of committing her to the care of a dresser, with instructions to watch

over her with care, and in case of hæmorrhage, to give a large injection, so as to distend the rectum and expel the blood it contained, and then to have recourse, without hesitation, to the cautery.

These precautions were not unnecessary. The patient lost but little blood; the hæmorrhage being arrested by cauterization. Whether from fear, however, or from the pain of the excision and the cauterization together, the patient had a violent nervous fit, which alarmed the dresser, and unfortunately determined him to open a vein in the arm. In consequence of this she was attacked with violent pains in the head and palpitations of the heart, both which M. Dupuytren did not hesitate to ascribe to the imprudent venesection. He was the more easily led to this conclusion from a case which he had at the same time under his care in private practice. It was that of a young man who, having lost a considerable quantity of blood from hæmatemesis, had in consequence very severe pains in the parotid glands, which part they quitted only to appear, with equal violence, in the calves of the legs.

The swelling induced by the cauterization was inconsiderable. The patient laboured under a diarrhoea for some days, but this complication was successfully treated; and after some months' residence in the hospital she went out, still weak and pale it is true, but cured of her malady, and of the cause which produced her weakness. At home, it is probable, she was not long in obtaining a perfect restoration to health.—*La Clinique des Hopitaux.*

—o—

NEW INVENTION—OPERATING TABLE AND INSTRUMENT CASE.

WE have examined an apparatus, the invention of Dr. Veitch, of Chelsea, by which, and within the space of three feet four inches in length, two feet in breadth, and three in height, there is not only an admirable operating table, but every instrument and bandage necessary for operations may be so classed and arranged as to give the wounded man requiring surgical aid all the advantages that the best operating theatre can confer. It will be equally applicable to the navy, the army, and private practice, because portable, where the surgeon is frequently compelled to operate. It now stands in the Model Room of the Admiralty, where it has been examined by some of the most accomplished and distinguished officers of the army and navy with approbation, because likely to diminish the loss of life, as well as to abridge the complicated pain and misery, the result of the day of battle, by the certainty and celerity with which its powers can be, under all circumstances, applied. These are our deliberate opinions, from having minutely inspected it.

—o—

The London Medical

AND

Surgical Journal.*Saturday, January 2, 1836.*

— — —

INJUSTICE, JOBBING, AND IMPOLITIC
LEGISLATION OF THE DUBLIN COL-
LEGE OF SURGEONS.

OUR readers will be astonished at the facts we are about to submit to their notice, which show the partiality of all our medical corporations. The intriguers of the Dublin College of Surgeons are now placed in a very awkward predicament by the resignation of Mr. Kirby, their Professor of the Practice of Medicine. The College have passed a by-law that no one should be eligible to the vacant chair, unless a member of their own body; and discovering that even this monopoly might introduce a gentleman eminently qualified for the office, a second by-law is suddenly passed, to the effect that such member must be a *practising* surgeon. The object of the second piece of legislation was to exclude Dr. Green, one of the lecturers at the Richmond Hospital School, a physician in the highest estimation, one of the few good pathologists in Dublin; a popular lecturer who has a large class, and one who is universally respected by his professional brethren; and would be supported by every liberal man amongst them as a candidate for the vacant office. But Dr. O'Beirne, Mr. Carmichael, and the other lecturers of the Richmond Hospital School, among whom is Dr. Green, have given the most triumphant opposition to the College School. They cannot be forgiven, nor any one of their associates. But mark the mean and despicable conduct of the professor-

makers in Stephen's-green. They pass a second by-law, excluding all members of their body from the chair of physic, unless a *practising* surgeon; and this vile and iniquitous law was made for the express purpose of excluding Dr. Green, who, a year or two ago, unfortunately lost his hand in consequence of the bursting of a gun, and was necessarily compelled to abandon surgery, and to practise as a physician. He cannot practise surgery, in the above sense of the word, and being a formidable rival in a flourishing school, a new by-law was concocted for destroying the voice of nine-tenths of the College, who are his supporters, but all of whom must obey the monopolising junta who framed it. Thus it appears that, were it possible for Sir Astley Cooper or any other equally eminent honorary member of the College to be a candidate, and meet with such a serious injury as Dr. Green has unfortunately met with, instead of generosity, as well as justice, influencing his brethren in electing him, for teaching modern pathology depends more on brain than hand, whatever the manualists of the Dublin College may think to the contrary—he should be excluded.

What shameless absurdity! What consummate folly! but what atrocious inhumanity towards Dr. Green. Such injustice was sure to meet its reward. The Solons of Stephen's-green have now discovered, that not one of their manualists is fit or competent to take their chair of Practice of Medicine, which remains vacant at present, and must until they repeal their infamous by-laws. All physicians are excluded. Dr. Corrigan, who is one of the very best pathologists and best attended lecturers on medicine within 300 yards of

the College, is ineligible, Dr. M'Adam, even *honourable* Park-street professor, and others, are also physicians, and "not members of our body, as practising surgeons." The jobbers, have, we understand, reasoned as follows:—

"Dr. O'Beirne, Mr. Carmichael, Mr. Ellis, Dr. Brennan, &c. are Radicals, —have nearly ruined us, and erected much better attended schools in our very faces, and so exposed us before the Parliamentary Committee, that a crowded auditory looked on us with marked contempt and indignation for our delinquencies in monopolising every thing for ourselves. None of these will do, though every one of them is qualified even by our recent by-laws; but they have larger classes than ours, and will not desert them. Mr. Carmichael abolished apprenticeships, put many thousands out of our pockets, by his absurd scheme of introducing the policy of the London and Edinburgh Colleges, of allowing students from all parts of the kingdom to present themselves for examination. Besides, he founded the Richmond School. He ought not to get the chair; and, moreover, if offered it, he would refuse it.

Dr. O'Beirne has seen more surgical and medical practice during the late war, than half the College; is a *practising* surgeon and physician; but he horribly exposed us in London, enough to damn our reputation; is a papist, and a man of such a nice sense of honour, that, on the proposal of the first job, he might take it into his head some day to challenge the whole of us, and fire at us one after the other, in regular military order, leaving the dead and wounded on the classic plains of the Phoenix-park. He is too honourable, talented, and dangerous a character to have any thing

to do with—ergo, we shall not elect him. Mr. Ellis would be a most efficient lecturer, but he is the successor to Mr. Kirby, is too clear-sighted to be duped, is a rancorous opponent, a successful rival, and as bad an exposé of our intrigues as O'Beirne. *Omnes*, he must be kept out."

Who, then, is to be the surgical operator that is to contend with Corrigan, Green, &c. on the practice of medicine? There is not a single member of the Dublin College of Surgeons, besides those mentioned, above who is equal to the task. It is very probable, however, that some accommodating monopolist, but no pathologist, will be appointed; if there be any one even of that order such a simpleton as to fancy lecturing to empty benches. The professor makers at the College School ought to know that the present race of medical students are too enlightened for the antiquated cabinet-makers at the Dublin College; and will not attend impotent lecturers. There is another remarkable fact in relation to the policy of the Irish College School, which is this, that all the Universities, Colleges of Physicians and Surgeons, and Societies of Apothecaries in the United Kingdom require the lecturer on Practice of Medicine to be an M.D., and a member of the Physicians' College, if a teacher in London, Edinburgh, or Dublin, before his lectures will be recognized. But mark the exception in favour of the Dublin College School. In all the other schools in the Irish metropolis, the lecturer on physic must be a Doctor in Medicine, and a member of the College of Physicians; but, in the favoured school, he may be a D.D., an LL.D. or A.S.S. Now, how the examining bodies can act so glaringly partial, is

to us astonishing. No individual is allowed to lecture on medicine in London unless he is a member of the College of Physicians, nor in any provincial school, unless he is an M.D. of some University. The effect of this law is, that the lecturer must pay a large sum to the College, run the risk of being rejected, revive his classical and medical studies, before he can obtain a recognition. Why then, we inquire, should there be partiality shown to the Dublin College Professor? We call on the College at at Lincoln's Inn, and the wisacres at Blackfriars to act impartially, and place the favoured school on the same ground as all others. These, and all other examining medical bodies, should teach their Dublin brethren that an *operating or practising* surgeon is not qualified to teach the practice of medicine; nor is there a single hospital surgeon in this metropolis, who would have the presumption to attempt it, though, by the way, they almost all have to practise medicine. It would be an insult to the commonest understanding to inquire, are not the London Hospital surgeons as competent as the Dublin, and as well qualified to lecture on Practice, Medicine, &c.? Nevertheless, the Medical Corporations will not recognise them as teachers of that branch of the healing art, though they tolerate one individual of that class, because another Corporation desires it. Yet, to hear the evidence of these bodies about their *strict impartiality* before the Parliamentary Committee, and, to read it in the published report, one would really imagine them just, pure, and beyond suspicion, in management of Medical Education and Practice. But the example before us disproves their evidence, and is a disgrace to them. Let

them at once enforce their regulations impartially, and no longer outrage the many able lecturers on medicine in Dublin and elsewhere, by tolerating the glaring anomaly to which has given rise to these strictures. Let them show the Dublin College School that the course of education must be the same as in every rival Medical School, and in every one in the kingdom.

If the Dublin College of Physicians were not powerless, or if they acted as they ought to have done, they never would be subjected to such an insult as exclusion from a lecturership, which custom and law have assigned them. But they are actuated towards the surgeons by the same illiberality; and would not on a late occasion, join them in a medical society, since denominated the Surgical Society of Ireland. The old leaven of the London Colleges exists in the Dublin, and nothing good in policy can emanate from either, as regards each other or the branches of the profession which they have so long injured. It is, however, most consoling to know, that these conflicting bodies will, ere long, be reformed, liberalised, and united in one faculty; or perchance entirely abolished, and their places supplied by better. Thus the old proverb that a house divided against itself cannot stand.

—o—

THE METROPOLITAN UNIVERSITY.

We are happy to state that the views we offered on the intended monopoly in the London University are in accordance with those of the profession in the different medical schools, as well as of Mr. Warburton, and of the friends of rational reform in the education and practice of medicine in this kingdom

Several deputations have waited upon the Chancellor of the Exchequer, since our last publication, for the purpose of remonstrating with him against the proposed monopoly, and we are pleased to state that the Right Honourable Gentleman heard all with the greatest attention. We have also reason to know that the remonstrances of all the schools, will produce the desired effect.

—o—

NEW INVENTION.—PORTABLE OPERATING TABLE AND SURGICAL INSTRUMENT CASE, FOR NAVAL, MILITARY, AND GENERAL PRACTICE.

It affords us great satisfaction to direct the attention of the profession and the Governors of Hospitals to the description of a new invention and a most valuable one, made by Dr. Veitch of Chelsea, an experienced Naval Surgeon, which will be found in another of our pages. We have designated it as above, and earnestly recommend every Surgeon to inspect it and possess it. It, in our opinion, will be invaluable to the Naval and Military Surgeon, and also to every practical Surgeon. It is now at the Admiralty, and has been inspected by several of our bravest and most experienced naval commanders, every one of whom has highly approved it. Among those we may mention the name of one of the bravest and most experienced of them, the Earl Dondonald, late Lord Cochrane, who, after the closest inspection, declared it to be admirably adapted for the purpose for which it is intended, and that it ought to be in every ship of war. It opens at the top and forms a table, while its compartments are sufficient to contain every instrument and means necessary to the practical surgeon, and these are so numbered, that

any person who is able to read may, in cases of necessity, act as assistant to the operating surgeon, which is often a great advantage during the heat of battle. It is scarcely necessary to mention, that the instruments are concealed from the view of the patient, and not displayed on tables, as in our largest metropolitan hospitals. The whole apparatus occupies a very small space, may be purchased for three pounds sterling, and would be a useful ornament in every private surgery. It reflects great credit on its inventor, and will be the means of transmitting his name to posterity, as one who most materially contributed to relieve the sufferings of all engaged in the defence of their country. Veitch's portable operating-table and surgical instrument case will have a niche in the annals of surgery.

Hospital Reports.

NORTH LONDON HOSPITAL.

On the Treatment of Stricture—from a Clinical Lecture on Stricture, by Mr. Liston.

MR. LISTON objects to elastic bougies, as they may turn upon themselves and the point may be carried into a direction precisely opposed to the one required—he considers the metallic curved bougie the most useful instrument. If obstruction to the bougie arise from contraction of the muscles about the urethra, by diverting the patient's mind you will succeed in subduing the spasm. The instrument acts by reducing the irritability of the passage; all effect of the introduction should be allowed to cease before the employment of another.

He could not see the necessity of using caustic—neither as recommended by Duran, who mixed Armenian bole and escharotics in his bougies, for the purpose of removing warts or carbuncles that were supposed to exist;—or the nitrate of silver, as used by John Hunter, and afterwards by Sir E. Home, and as now revived. He had no objection to the employment of nitrate of silver for the purpose of reducing irritability, but this could be effected otherwise; he did not consider it safe

or proper to use it as a caustic to the strictured part.

Sir E. Home relates a case in which his caustic bougie had been introduced 489 times, which did not effect a cure after all, the patient after that having occasion to use a bougie daily. The same objection he should raise to cutting instruments in all their various forms as recommended by various surgeons. He was certain that in slight cases this sort of apparatus was not required, and in bad cases that it could not be attended with any benefit; even if the stricture were perforated by a sharp instrument, or the *lapis infernalis*, a contraction would inevitably take place afterwards, of a more tight, unyielding, and rigid kind.

The plan Mr. Liston invariably pursued was to get an instrument, however small, to pass the strictured part: the case then was completely in his power; great care and caution of course were necessary in these operations, but a surgeon must not be disappointed if he failed at his first attempt of getting a passage through the contraction; for if any water came away at all, he ought to succeed in passing the catheter in one of his attempts, and even sometimes where there was not even water passing. In very bad cases, such as lately had been in the Hospital, when the instrument had fairly passed the stricture, and got into the bladder, it should be retained in that position for 48 hours, by means of a tape attached to each of the rings of the catheter, brought under the thigh and attached to a bandage passed round the waist. A profuse discharge coming on is proof of an effort of nature to remove the foreign body; the passage becomes larger, and the instrument may be passed larger and at longer intervals. The fear of retaining a catheter more than two or three days arises from the possibility of the end of the catheter forming a nucleus for the calculus. It has been recommended in impassable strictures to pass the catheter down to the contracted part, and allowing it to remain there; and that it would then slip into the bladder—that plan he had never found successful. Mr. Guthrie mentions a case in which it had been kept in eighteen days—he succeeded in getting a passage, and then passed the instrument daily; a practice which Mr. Liston certainly did not approve of.

Anomalous Affection of the Head.

PHILLIS H. T. aged 40, servant, was admitted November 24, under the care Dr. A. T. Thompson. The history, as follows, was obtained from her sister. Latterly the patient has suffered considerable anxiety of mind from some domestic affair, and has complained of pain at the back part and left side of the head, which she has described as sometimes dull and heavy, whilst at others it was sharp and laminating, seeming to shoot

through the head. This pain has been much increased on her suddenly rising up—and she has absolutely screamed out with it when first awaking in the morning, and raising her head from the pillow. The recumbent position does not appear to have any effect on the pain. About a month ago she was overturned in a coach as she was coming to town, on which occasion her suffering was much increased; but her sister does not suppose her present affliction originated at that time. During the last fortnight her memory has been much impaired, there having been occasional wandering. She also suffered from drowsiness, and slept very soundly at night, until last night, when she was exceedingly restless and walked about. She has just menstruated. Previous to her last menstruation she complained of a violent pain in the back; she passed two weeks over the usual period. She has occasionally had slight chills coming over her—at other times she has been hot, but there has been no perspiration. Her taste has of late been vitiated, most things appearing disagreeable to her—appetite impaired—thirst great—her bowels have not been open latterly—she suffered formerly very much from hysteria, she has been cupped at the back of the neck. Her present symptoms are great drowsiness, with evident display of loss of memory—as she is frequently putting the same question after it had been answered—there is a dull expression of the eyes—the pupils are contracted—she frequently starts with pain in the head, which she refers to the left side and back part of it. The scalp is preternaturally hot, and pressure on it, a little way behind the left ear, is attended with much pain. The pulse is 70, and rather labouring—her skin is warm and dry—her tongue moist and slightly furred—her appetite impaired—thirst great—bowels confined—urine natural.

On the 25th November, she was cupped on the back of the neck to eight ounces, and a blister was applied behind the left ear, and a pill composed of one grain of ipecacuanha and one of calomel given every hour.

27th. She has less pain than when she was admitted, and when asleep is roused with considerable difficulty; the cupping and blistering afforded her no relief, her pulse continues as at last report, and she is much the same generally, except that the bowels have been moved, the faces were dark and offensive.

R. Antim. tart., gr. vi;

Aq. distil., ℥vi.

M. capiat coch. amp. duo 3ta hora.

30th. The medicine made her sick—she has been getting more and more drowsy, seemingly unconscious of any thing around her. There does not appear to be much pain in the head, but there is a great degree of stupor—the bowels were moved yesterday—she shews her tongue readily—it is rather swollen, and there is a slight mercurial taint

of the breath. Pulse 84; less labouring, but it is fuller—the pupils are contracted—the head is not preternaturally hot. A blister was applied behind the left ear, and the following mixture substituted for the pills.

℞. Ammon. carbon., ʒj;

Mist. camphora ʒvi.

Capiat coch. mag. iij. ʒt. r. 4ta quaque hora.

Dec. 1. The urine and fæces were yesterday passed involuntarily, but since then the bowels have not been opened—at present there is a great degree of stupor which is increased towards evening. Her breathing is stertorous, the scalp is not preternaturally hot, the pupils are contracted, the eyes are more sunken within the orbits, the integuments of the forehead are occasionally corrugated, some difficulty was experienced in getting her to put out her tongue, which was retracted slowly afterwards; it was covered with a slight fur, was much swollen and indented by the teeth. The cheeks are slightly swollen, the mercurial factor in the breath has much increased, and the gums are tender, her pulse is 104, fuller and stronger. Her skin is warm and moist, and she has perspired a good deal. She is quite motionless and passes her urine involuntarily. She has some degree of consciousness, knowing that her sister was present, and answering some questions that were put to her.

2nd. To-day lies quite senseless and motionless, her countenance has a very bloated appearance, the lips and cheeks are moved by expiration, the eyes are much sunken within the orbits, the pupils are contracted, the integuments of the forehead corrugated, scalp of natural temperature. Pulse 106, strong, full, but rather irregular and intermittent, she is not capable of protruding her tongue, breath still has a mercurial factor, her respiration is rather hurried and stertorous, attended occasionally with a peculiar kind of noise expressive of pain. Her skin is warm and moist, her bowels have not been opened to-day, urine passed involuntarily, thirst moderate, has taken a little beef-tea, the eyelids do not close when separated.

C. C. ad ʒviij temporibus.

The stertorous breathing was somewhat diminished after the cupping, but increased towards the evening.

3rd. The stupor is less than it was yesterday; she protruded her tongue when asked to do so, it was swollen and covered with a whitish brown fur; she complained of pain in the lower part of the back, her countenance has not the bloated appearance it presented yesterday, but is more cadaverous, her eyes are very much sunken and are surrounded with a dark areola, the temples appear sunk, the cheeks emaciated, and the nose sharp; there is no colour in the countenance, the pupils are alternately contracted and dilated, sometimes as small as a pin's head, whilst at others they form one-third of the transparent cornea, the cheeks and lips are not puffed out during expiration as

they were yesterday, the forehead is still corrugated, the eyelids are not quite closed, the breathing not quite so quick, and stertorous as yesterday, but the quick and noisy respiration seems to come on in paroxysms of about ten minutes' duration, and there is an intermission of comparatively free and easy respiration for about the same period. Her pulse is 140, strong and rather full, not perceived to be intermittent or irregular to-day. The bowels have not been opened, the urine has been passed involuntarily. Mr. Taylor ordered a blister to the occiput; six drachms of castor oil were given her. The bowels were opened very freely soon after the administration of the oil, the fæces were not particularly offensive, or of unnatural colour, she did not pass them involuntarily. The nurse observed some convulsive movements this evening, in the upper and lower extremities; they were, however, slight, and of short duration.

A friend who called to see her to-day, stated that previous to the impairment of her memory the patient took a pint of strong gin, neat—the causes of this excess were attributed to great mental anxiety, and the pain in the head.

4th. She is very much improved—the countenance much altered for the better—and she is quitesensible. Pulse 105, smaller and weaker than yesterday—respiration easy and natural—skin cool and dry, tongue coated with a whitish-brown fur; bowels open; fæces and urine passed voluntarily. The pupils are less contracted, and the alternations of contraction and dilatation have ceased. She complains of pain in the lower part of the back, and has been asking for gin. There is great tenderness of surface over the chest and down the back in the region of the spinal column. Ordered to take a small quantity of white wine whey occasionally, and a grain of calomel at bed-time.

7th. Continues about the same as at last report. Pulse 102, small and weak—respiration natural; skin cool and dry, no perspiration; tongue slightly covered with a whitish fur—pupils not much contracted—bowels open—the fæces and urine passed voluntarily. During the last two days she has been very cold in the day-time, becoming very warm towards evening—and, after continuing warm a short time, perspires freely.

℞ Infusion Cinchonæ ʒiiss. 2nd a quaque dozel paroxysm calid. invent.

8th. This afternoon she was attacked with a sharp pain in the left side of the chest, soon afterwards her head became very hot; and the action of the carotid and temporal arteries became very strong; pulse weak, 130—respiration quicker again and laborious—skin warmer and dry—she is more drowsy to-day—pupils rather more contracted—bowels open, fæces and urine passed voluntarily.

C. C. ad ʒviij.

—The pulse was fuller after the cupping. The action of the carotids and temporals

much diminished in strength, and the heat of the scalp much less. About two hours after the cupping she was covered with a profuse perspiration—she has eaten nothing lately, there is some difficulty of swallowing. She drinks a small quantity of white wine whey occasionally—she was sensible of the cupping.

9th. The heat of the head is somewhat greater to-day than it was last night—she is very drowsy, sleeps very soundly and for a long time—she opens her eyelids slowly when roused, and soon relapses into her former condition; she occasionally opens her eyelids and stares about her, the pupils are rather contracted, the difficult deglutition is not constant and is sometimes greater than at others. Her friends stated to-day that all kinds of tonics had always operated as stimulants with her, causing great excitement.

R. Potassæ sulphatis, gr. xv—Pulv. Rhei. gr. x. M. ft. pulv. hora. somni sumendum, hac nocte.

Omitt. inf. Cinchonæ.

11th. The head has not been quite so hot since the last report; in other respects she is the same.

R. Ammon. carbon. gr. vi;

Infusi lini 3 iss. 4ta. quaq. hora.

Allowed to have some chicken broth.

12th. Countenance very much improved; at times she sits up and talks quite rationally, at times she is wandering slightly, she is very drowsy, sleeps a great deal and very soundly—respiration pretty tranquil—pulse 104, rather weak and irregular. Skin cool and dry, she does not perspire. The head is rather warmer than the other parts; tongue pretty clean, bowels open—the fæces are sometimes passed involuntarily, at other times not. She occasionally looks about her with a vacant stare, her pupils contracted; sighs frequently.

14th. Little difference since last report; pulse 106, rather stronger. A purgative was given her to-day, omit whey.

Since this report she has been gradually getting better, and is now nearly recovered, having a good appetite and being very cheerful.

—o—

Transposition of the Thoracic and Abdominal Organs. By M. Bally.

A MAN, twenty-five years of age, went into the hospital of La Pitie, with an inflammation of the ileum and ileo-cæcal valve. The progress of the disease was at first slow, and even admitted some hope of recovery; but the local affection becoming complicated with symptoms depending on disturbance of the innervation, or in other words, the disease having assumed a typhoid character, it rapidly advanced to a fatal issue.

At my first visit I discovered the transposition of the heart, and predicted that of the other viscera of the thorax, as well as those of the abdomen. I claim no great merit for

this prediction; for if an organ like the heart be transposed in the formation of the child, the other organs must necessarily undergo a similar displacement. The following were the phenomena observable.

In the left side of the chest, there was no impulse in the precordial region, nor were the ordinary sounds of the heart heard there. The sound on percussion was not dull as it should have been, but was the same as in regions where the lung, well filled with air, gives the sound proper to it. On the right side of the chest, on the contrary, there was dulness to a certain extent; and in this space the sound of the contraction and dilatation of the heart (the point of which beat against the space between the fifth and sixth ribs) was heard distinctly. Many physicians and a great number of students, came to see the patient during his life. He sunk on the twenty-fifth day, with symptoms exactly resembling those of ordinary adynamic or typhoid fevers. The transposition of the viscera did not appear to make any alteration in the course of the disease.

In the post-mortem examination, which was made next day, I carefully removed the sides of the chest, in order that the organs might be completely exposed to view, in their relative situations.

The right lung had only *two* lobes; the left had *three*. The anterior border of the *right* lung was notched at its inferior part to receive the point of the heart. The anterior mediastinum, instead of tending to the *left*, was directed towards the *right*. The pericardium, free from the *left* side, was fixed to the *right* side of the diaphragm. The *anterior* part of the chest was now removed, and the pericardium opened. It was then perceived that not only had the heart changed its *direction*, but that it was entirely turned round, in such a manner that the *posterior* face had become *anterior*; the left ventricle was to the *right* and *anterior*; and the right ventricle to the *left* and *posterior*. This change of situation occasioned, of course, a similar alteration in that of the auricles, and of the veins and arteries connected with the heart. Thus the aorta, instead of being directed *from right to left*, proceeded *from left to right*. Its arch was a little to the *left*, and much more backward than in the natural state. Its descending thoracic portion occupied exactly the median line of the vertebral column, and the same in the abdomen. The vena cava was invariably found at its *left* side. Of the arteries springing immediately from the arch of the aorta, the brachio cephalic trunk issued on the *left* side; and the carotid and subclavian arteries from the opposite side. The pulmonary artery passed obliquely upwards and to the right. Of its two branches the *left* was the longest, and divided into *three* parts; the *right* was shorter, more horizontal, and had only *two* divisions. The *right* subclavian vein, longer than the other, passed in front of the tracheæ

and arch of the aorta, to empty itself into the vena cava superior, was situated on the *left* side of the tracheæ; and, in their turn, the two vena cava emptied themselves into the left auricle.

Of the two recurrent nerves, the *right* was reflected round the arch of the aorta; and the *left* round the brachio-cephalic trunk. The opening in the diaphragm for the passage of the vena cava inferior was on the *left* side.

Passing now to the examination of the abdomen, the spleen (large and well-formed) occupied the *right* hypochondrium; and the liver the *left*. The position of the latter also differed in other respects from that which it is usually found to occupy. Thus the smaller lobe was prolonged *from left to right*, over the anterior surface of the stomach. The gall-bladder, taking the same direction, and inclining obliquely from before backwards, communicated with the duodenum, which was likewise transposed. The greater extremity of the stomach was to the *right*, and this, together with the transposition of the liver, the direction of the gall-bladder, and the altered situation of the duodenum, had induced the inversion of the whole intestinal tube; so that the cæcum was lodged in the *left* iliac fossa, the sigmoid flexure of the colon was on the *right* side, and the rectum was directed superiorly from *right to left*. The pancreas was equally out of place.

It will be readily understood that the origin and direction of the arteries springing from the aorta, were reversed throughout; but I need not enter into particular details; since the position of the principal trunk being changed, the relative length and direction of its branches must be altered likewise.

—*Gazette Medicale*.

—o—

To the Editor of the London Medical and Surgical Journal.

SIR,—If you think the following paper worthy of a page in your valuable journal, by inserting it you will oblige,

SIR,
Your obedient servant,
J. W. MOSES.

An Explanation of the Action of Tartarized Antimony, on Physiological Principles. By J. W. Moses, M.R.C.S.

THE chemical composition of this medicine, according to some of the best authorities of the present day, appears to be involved in much doubt and obscurity; it is generally allowed to be a triple salt. However, as it is not its chemical composition, but its action, which I shall endeavour to explain, it is not necessary to dwell longer on this head.

In large doses tartarized antimony acts as a corrosive poison; from one to two grains will generally procure vomiting, sometimes purge, and lastly cause perspiration. Orfila

states, “Experience, however, proves that a few grains of Tartar Emetic may be the occasion of death, if not vomited; an extreme depression and feebleness have been known to arise from a single grain, which had occasioned *no evacuation*.” One-fourth of a grain will produce diaphoresis, one-half of one will procure some loose stools first, and perspiration afterwards. Nature, throughout all her laws, observes the most rigid economy, and this fact appears to be well illustrated in the action of tartarized antimony on the living animal. We perceive that this salt, when given in large doses, produces death; in small, vomitings and purging; and in a still smaller quantity, sweating.

These are all strong proofs of its being a most hurtful substance to the animal economy, and as such, nature exerts her strength to get rid of it, as quickly as she can, from the system, which is done with as little sacrifice of power as possible.

In small doses the salt is thrown off by the skin; the perspiration, we know, may be augmented with the least expenditure of vitality; so here nature, observing the most rigid economy, throws the hurtful substance off by this mild emunctory; which small quantity, if we could imagine it to be retained, no doubt would prove hurtful to the functions and organization of the animal. This I hold to be the simplest mode of parting with the salt, and the one attended with the least depressing effects.

Now I shall take a larger quantity, which must be ejected sooner than the former, for obvious reasons; here we observe nature directs her powers to the intestinal canal, and causes an increased secretion from it, and an increased peristaltic action, by which the substance is principally thrown off, the skin assisting in a minor degree. This mode of getting quit of the salt is attended with a greater loss of vital power than the former, as we may observe from the weakness it produces; but the quantity of the medicine being greater than in the last case, must be brought away sooner, otherwise the injurious effects it would induce, by leaving it to be thrown off by diaphoresis, would be more prejudicial to the system than the purging.

I shall now take a still larger dose; and here we may perceive that vomiting is the principal mode by which the system frees itself from the salt.

And why vomiting? Surely it is the readiest way of parting with the hurtful substance, which has been taken into the stomach in a quantity too large for nature to wait for the much slower operation of purging or perspiration, so that she directs her powers principally to the stomach, and in this way there is a greater loss of vitality than in the two former. We are well aware this cannot be avoided; did she not summon up all her remaining strength to assist her already exhausted state, death must ensue, as we see it does when a larger quantity is taken than

she is able to get rid of, even by calling into action (as her *dernier ressort*) not only the stomach, but the intestines, and likewise the skin; but all avail not, she is overpowered, and so gives up the field.

It has been stated that when tartar. antim. is injected into the veins, it will produce vomiting; and why should it not, just as well in this case as in the former? It is advanced by some of the best physiologists of the present day, that the veins have no power of throwing off any thing in the form of secretion, their structure, &c. not being adapted for it (I am aware this is a disputed point); so the substance must pass through the pulmonary circulation, and so on to the left side of the heart, and then it will not be long in arriving at the stomach and intestines, where it produces its effects, for reasons I have already given.

Why should not nature exert her powers, to free herself from a hurtful substance introduced into the stomach, in the most economical way, as well as she does to get rid of a splinter of wood, or any foreign substance, which may have been wilfully or accidentally introduced into any part of the body? I maintain that tart. antim. is just as hurtful to the healthy process of digestion, while it is in the stomach, as a splinter of wood is to the action of a muscle in which it may be lodged. When a large quantity has been taken, vomiting is produced first, by which the main bulk is thrown off; after that has taken place, there is no necessity for the system to keep up a continued action so depressing; no! then the remaining portion is parted with by the intestines and skin, there being a much less sacrifice of power in the performance of these functions, than in that of vomiting.

Douglas, Isle of Man,
Dec. 22d., 1835.

Apparent Death, which continued for Twenty Days.—A young man died in the hospital at Paderborn, who could not be buried until three weeks after he had breathed, at least to all appearance, his last breath. It was not till the twentieth day that the characteristic phenomena of death became manifest. The circumstances of the case were these:—This young man had been a little time before cured of a tertian ague, when he re-entered the hospital, presenting some signs which caused an apprehension of phthisis, without, however, presenting any well-marked symptoms of this disease. In other respects, no disturbance in his health. On the day he died, his eyes were suddenly opened, and for some minutes he found an irregular beating of the pulse. Several small wounds resulting from cauterizations, to which we then had recourse to rouse him, suppurated the second, third, and fourth days. On the fifth, the hands of the body were turned back; from

the fifth to the ninth day there exhaled from half the body an abundant sweat, free from odour. Towards the end of the ninth day, there appeared over a considerable part of the dorsal region serous bullæ, similar to those of pemphigus. The limbs still preserve their natural suppleness; and on the eighteenth day the lips still retained their red vermilion colour. For nine days the forehead continued furrowed with vertical wrinkles, and all this time the countenance preserved an expression never presented by the face of a dead body. The body was kept for nineteen days in a warm room: it exhaled not the least fetid odour, and there was observed on no part of its surface any cadaveric lividity. The emaciation was very considerable; a circumstance which, if it had existed, might have served to explain these different phenomena.

—o—

Abdominal Uneasiness.—This unhealthy sensation is too indiscriminately referred to a disordered state of the liver. It is probably more justly attributable to the large intestines, incumbered and distended by an undue retention of fæculencies, requiring a free and complete removal. The scybalous accumulations, which are apt to occur in the cæcum, colon, and rectum, cause a sense of oppression, distension, and occasionally, indeed, acute pain. This state of repletion may produce hurtful pressure on the adjacent viscera, and excite sympathetic disturbance throughout the whole digestive organs. It is often found, that the persevering use of daily enemata in those cases will finally unload the distended and torpid intestines of their impacted contents, and consequently, at once remove the constipation and abdominal distension that constitute the anomalous and ambiguous character of this intestinal, but frequently mistaken ailment. The habitual use of lavements by the French, prevents the distended state of the abdomen, that in England is often too cursorily referred to hepatic disease. Were the use of enemata to be as familiarly and constantly adopted by the people of the one country as by those of the other, an equal exemption from the imputed affection would most likely be the result.—*Kinglake.*

—o—

Practical Observations on Homœopathy; with a variety of cases, tending to prove its decided superiority over the ordinary system of medicine. By Wm. Broeckes, M.R.C.S. 8vo., pp. 133. London. 1836.

Pharmacopœia in usum Nosocomii Regii Glasguensis. Auctore R. M'Gregor, Chir. &c. 12mo. pp. 19. Glasgow, 1835. Graham.

A very scientific and useful production.

London Medical and Surgical Journal.

No. 206.

SATURDAY, JANUARY 9, 1836.

VOL. VIII.

ESSAY

UPON SOME POINTS OF THE
HISTORY OF CATARACT;*Thesis presented to, and sustained before, the
Academy of Medicine of Paris.*BY THEODORE MAUNOIR,
OF GENEVA,*Doctor of Surgery; Member of the Medical
Observation Society.*

TRANSLATED

BY ALEXANDER THOMSON, M.B.

Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes Qui sommes nous pour nous détourner de cette voie."—BICHAT, *Œuvres Chirurg. de Desault.*

IF, in the study of cataract, we are willing to confine ourselves to the seat, to the nature, to the principal symptoms, to the principal varieties of the disease, and to the surgical means employed for curing it, nothing is better known than this disease; it may be said that there is perhaps not one of which the history is more simple, more clear, more uniform, and the treatment more uncontestedly efficacious. But if we come to details, if we demand what is the precise value of each of the assertions of the authors, where are the proofs that have served them as a basis? if we seek for the answer to several questions of which the dogmatical works do not even speak—above all, if we would know on what side the truth lies, when there is opposition between men of the highest merit, in reference, for instance, to the comparative value of the two great operative methods, upon which, however, such long and barren discussions have been written—we are not long without convincing ourselves that the authors have consigned on this disease, as upon so many others, rather the vague reminiscences of their experience than the results of the rigorous analysis of facts accurately observed.

It is to this imperfect method, which alone is applicable the aphorism, *experientia*

VOL. VIII.

fallax, that the so discordant opinions met with at each step in medicine, and the complete omissions upon so many points that would be interesting, and frequently useful to know, must doubtless be attributed. Were it otherwise, were the constant variability of the facts the cause of the different opinions upon the same subjects, met with among the most eminent men, not only in the history of diseases properly so called, but particularly when there is question of curing them, this would imply nothing less than the definitive annihilation of all medical science. Indeed, for the existence of a science (and I speak of a science of observation), it does not suffice to assemble together, even to infinity, the most circumstantial, and the most accurate facts—the relations uniting them must be found, the limits of their variations discovered; or how find these relations, if none exist—the limits of their variations, if these variations be infinite?

Happily it is by no means so; and, as I have already said, the rather common habit of authors of referring only to their reminiscences, to the authority of others, to some selected exceptional, frequently even but slightly accurate facts, perfectly accounts both for the differences in opinion, and for the complete omissions, and even for the evident errors. Does there indeed exist a memory sufficiently perfect to retain all their details, all the facts that offer themselves to the observation, to recall subsequently their elements, by giving to each but its real value—in a word, to make complete enumerations?

Whatever simplicity the history of cataract, as I have already indicated it, presents under several points of view, it suffices to compare the results of observation, as well with what the authors who have treated of this subject have written as with what they have omitted to write, for recognizing that there still remain many voids to be filled up, some errors even to be rectified, and almost in all cases positive values to be substituted for *almosts*; in other words, all has not yet been said upon this disease, and is probable not likely soon to be so. Such was the opinion of Dr. Tartra, when he terminated his thesis for the concours by these words:—

B B B

"Nothing would be more important, in order to perfect the pathological and therapeutical doctrine of cataract, than the assembling together of a great number of well authenticated facts, the comparing them with one another under their different etiological relations, the consideration of them subsequently with reference to their ascertained incurability, to the different operative methods or processes applied to cataracts deemed incurable; finally, to the more or less perfect cures, and to the other more or less varied results that may have been obtained."

I have not assuredly the pretension of remedying the least of the imperfections I point out. Having only had the opportunity of collecting a rather large number of histories of cataracts, I shall state what I have seen, without the intention of drawing any other conclusions than those which are strictly contained within the limits of the facts.

During the whole of the year 1830, the autumn of 1832, and the spring of 1833, I have assiduously attended upon the surgical service of La Charité, and, except the first six or seven operations that were performed in the spring of 1830, and upon which I possess no information, I have taken notes of all the cases, without exception, which during these four sessions have presented themselves to be operated on for cataract. My observations are not, unhappily, complete on all the points, that is to say, they do not answer all the questions I have necessarily put to myself; but if they are incomplete they are not inexact; if several are wanting in details that it would have been very useful for me to know, at least they contain none that are not the faithful expression of what I have observed with all the care in my power.

These explanations were necessary to lead to the comprehension of how, in reference to each particular question, the results are found based upon different numbers, since I have necessarily been obliged to employ only the histories which were complete upon the point of view with which I was occupied.

Besides, strongly desiring to know positively the influence of certain accidents, which sometimes occur to complicate the operation itself, and which the by no means ordinary skill of Professor Roux cannot always enable him to avoid, I have never failed placing myself sufficiently near to the patients for seeing, as exactly as possible, the delicate manœuvres, that in this more than in any other operation are of such great importance.

The observations I have drawn up are 121 in number*, which makes a mean of about

30 patients a season, for M. Roux is in the habit of operating for cataract, at La Charité at least, only in the spring and autumn.

I shall explain, in the following order, the different points of the history of the disease which constitutes the subject of my work:—

1. Causes.
2. Commencement and progress of the disease.
3. Symptoms and diagnosis.
4. Duration of the formation of cataract.
5. Description of the operation, its difficulties and accidents.
6. Consequences of the operation.
7. Definitive results.
8. Prognosis.

1. *Causes*.—Sex, age, constitution, profession, state of health, suppression of the menstrual or hæmorrhoidal discharge, external violence or accidents, and heridity, must be passed in review.

SECT. I.—*Sex*.—In 121 subjects affected with cataract, who have been admitted into La Charité, there have been 61 men and 60 women†. This number is doubtless sufficiently high to allow its being concluded, that if cataract attack one more frequently than the other of the two sexes, at least the difference cannot be very great. I am ignorant, however, whether one has been pointed out; it has been said that men are more subject to it than women. Thus, in the *Journal Complementary des Sciences Médicales*, tom. xli, we read a note of Professor Fabini, according to which, in 500 cataracts that occurred to him, there were 268 of the male sex, and 232 of the female sex, which makes almost 53 men and 47 women in 100; a difference very inconsiderable, as may be seen. There is, moreover, found in tom. iii, *Du Répertoire général d'Anat. et de Physiologie Pathologique*, a table of the operations for cataract performed at the Hôtel Dieu, by Professor Dupuytren, from 1815 to 1821. This table is formed from the results on 207 patients, of whom 135 were male, and 72 only of the female sex. This result, apparently very different from those I have just given, however agrees with them, since the number of beds destined for men in the surgical service of the Hôtel Dieu is almost double the number of beds destined for women.

SECT. II.—*Age*.—It is a thing well known, that cataract is a disease of old age; there

special men who for a long time back had engrossed that branch of the healing art. Those diseases may, in the present day, be studied in all the hospitals of Paris, and it is not to the detriment of any other part of the science that the surgeons of our days operate for cataract.

† It must not be forgotten that the number of beds destined to the surgical science of La Charité is very nearly equally divided between the men and the women.

* It is fortunate for observation that the treatment of the diseases of the eyes, and particularly of cataract, has ceased to be the lot, in some measure exclusive, of the spe-

is perhaps no affection more specially reserved to that period of existence; but, as if to confirm that so general rule, that nothing is absolute there, where there is question of the phenomena of life, examples of this disease are found at every age. It is not even extremely rare to see cataract congenital, since a single surgeon, Saunders, was able in the last three years of his too short career, to operate upon as many as sixty of that kind. It must be said, however, that the number of congenital cataracts, or such as supervene during early infancy, is very small compared with that of cataracts that are formed in an advanced age.

In the 121 patients of La Charité* none was less than 20 years; and I have convinced myself that at the Hôpital des Enfants Malades, it is as rare to meet with blindness produced by opacity of the crystalline, or of its capsule, as it is frequent to see them therein caused by perforation of the eye, or opacity of the cornea, the consequences of ophthalmia.

The following, however, is the manner in which 112 subjects are distributed as regards the age:

From 20 to 29 years	5 patients
30 to 39 .	3
40 to 49 .	11
50 to 59 .	25
60 to 69 .	41
70 to 82 .	27

On the other hand, in the note already quoted, of Professor Fabini, the 500 subjects attacked with cataract are thus classed:

From 1 to 10 years	14 patients
11 to 20 .	16
21 to 30 .	18
31 to 40 .	18
41 to 50 .	51
51 to 60 .	102
61 to 70 .	172
above 70 .	109

* For a long time the administration of the hospitals was opposed, it is not too well known why, to young infants being received into La Charité, while they were more readily admitted into the other hospitals. It may be believed that that is one of the reasons why none of the patients whose history I have drawn up was aged less than 20 years; but the thing is not very probable. Indeed, Professor Roux has told me that he has rarely had, in his private practice, occasion to operate for cataract upon very young subjects. I frequented assiduously during several months the Hôpital des Enfants Malades, without seeing a single case of that affection; and M. Ruy, who has there performed during two years the interné service, has not, during all that time, met with but a single infant affected with cataract.

Thus cataract, then, at that age must be rare, absolutely speaking; which besides is well known.

These two tables demonstrate the immense influence of age in the production of cataract, since the frequency of this malady increases in a very considerable ratio, in proportion as individuals are more advanced in age, that is, of whom there exists evidently a much smaller number, are examined. Thus it is clear that the 27 subjects of from 70 to 82 years represent a far greater proportion than the 25 between 50 and 59 years.

I must here point out that it is not only in a general manner, and within very broad limits, that nature confines herself to the laws she seems to have imposed on herself, but she follows them, in some measure, even into the details. Thus in these two tables, of which the one is made at Paris, the other in Hungary, it appears that it is between 50 and 60 years, that is found the fourth or the fifth of the total number of subjects affected with cataract; the third nearly between 60 and 70; a little less than the fourth above 70.

It may be to a certain degree objected, that the age of patients, at the moment in which they come to have themselves operated on, is by no means the age they have at the commencement of their cataracts, and which alone is interesting to be known, since a thousand circumstances may cause these individuals to submit to their blindness during several years. The following are the results obtained relatively to the epoch of the commencement in 64 subjects:—

Cataract had commenced—

From 20 to 29 years in	4
30 to 39 .	5
40 to 49 .	11
50 to 59 .	19
60 to 69 .	21
70 to 79 .	4

The difference, as may be seen, is not very great between these proportions and those of the other two tables; the number of patients increases and decreases in the same periods of life. I must add that the men and the women are almost in equal number in each period of ten years.

SECT. III.—*Professions.*—Certain professions have been considered as predisposing to cataract; they are all those that expose themselves to the action of a very violent fire, those of blacksmith, locksmith, glass-maker, cook, &c. &c.; those in which the sight is employed upon very small and brilliant objects, those obliging the eyes to be frequently in contact with certain irritating vapours, those finally in which the greater part of the time is obliged to be passed in the full sun-light; thus it is that Petit, of Lyons, had calculated that three-fourths of the individuals affected with cataract are persons employed in agriculture.

I have noted the profession of 108 persons affected with cataract (54 men, 54 women); or, of 54 men, 30 had been very much exposed by their occupation to the inclemency

of the air, and to the ardor of the sun; 12 of them had been old military men, of whom some had made the greater part of the campaigns of the empire; the other 18 were farmers, country workmen, guards of public coaches; there were two blacksmiths, a single glass maker, who had worked for ten years at the furnaces (his cataracts had only commenced ten years after he had quitted that profession; and a working jeweller who had been employed for four years in melting metals. The last 24 followed more sedentary professions, or such as did not expose them to the same influences; they were gate-keepers (*portiers*), domestics, shop-keepers, &c. &c.

No one patient has presented himself whose trade had obliged him to look steadily at very fine and brilliant objects, or had exposed him to irritating vapours. As to the women:—12 had been employed in field labour; 6 occupied in needlework; 5 washerwomen.

The others were domestics, gate-keepers, domestics by the day, &c.; finally, had not professions which exposed them to the action of the causes assigned to cataract*.

SECT. IV.—*Constitution*.—The external conformation, the assemblage of the features constituting the temperament, have been noted in 64 subjects (35 men and 29 women).

Among the men, 30 were of a robust constitution; their hue was swarthy; they were in general very muscular subjects, though already advanced in age—some even had almost athletic forms; in the greater part the plumpness was moderate, in a small number it was considerable; some were, on the contrary, rather thin; in 5 subjects the constitution was rather slender than robust.

The colour of the hair has only been indicated in 25 men. They were, or rather had been black or chesnut in 18; white or red in 7. I also remember that almost all the men were bald, even those who were not very old; but as I have not written it in my notes, and as I depend little upon vague reminiscences, I do not give the fact as certain.

Among the 29 women, 17 had, or had had the hair black or chesnut; their hue was more or less swarthy; in 6 the hair was white; 7 presented a very marked plumpness; 5, on the contrary, were thin; the others presented nothing remarkable in this respect.

One of the features of the constitution, interesting to be known, was the colour of the eyes; it has been indicated in 64 subjects. The iris was more or less dark brown

in 24; blue, but more frequently blueish-grey in 21; ash-grey in 2. In 17 others the iris had a greenish tint; it was of a glaucous green, very much marked in some, more frequently a greyish, or even blueish ground, but with a very marked green tint (*reflet*). These different kinds of colouring were distributed nearly equally in the men and in the women; the latter have, however, offered proportionally a few more brown eyes than the men.

It has been said that the near sighted are rarely affected with cataract. In 49 individuals, questioned relatively to the condition of their sights before the commencement of the disease, 40 have assured me that it had been very good and very long; in 9 only it had been short or bad.

SECT. V.—*State of Health*.—In 93 individuals, in whom the habitual state of health has been sought after with care, 87 had in general always been in good health; a great number even did not remember to have ever had the slightest indisposition; of the last 6, some were old men, probably affected with dilatation of the bronchial cells (*emphysème*); they had short respiration, and had been coughing for several years; two complained of having sometimes difficult digestion; another had had for several weeks back paroxysms of cough, and at the moment of his entrance into the hospital: moreover it must be said that none of them considered themselves ill.

An oculist, M. Lusardi, appears to have made the same remark: "I have verified," says he, in a Memoir on the Cataract, "that, both as regards men and women affected with this malady, the greater part had enjoyed perfect health;" whence it must be concluded that cataract is generally independent of every other species of morbid state of the organism, which is far from being frequent in other diseases.

SECT. VI.—*Cephalalgia*.—Great importance has been attributed to cephalalgia in the history of the cataract; let us see if the coincidence be frequent.

Sixty-three patients have been examined on this point of view: eight men in thirty-six, had been more or less subject to pains in the head; but in two only did these pains seem to have any relation with the origin of cataracts; one was an old man of 82 years of age; he had experienced some very slight headach for several nights at the commencement of his cataracts. The second, aged 55 years, had been from his infancy, subject to violent sick-headachs (*migraines*), which had returned for as many as three or four times a month, occupying sometimes the right side, sometimes the left side of the head, and forcing the patient often to go to bed during the access; these sick-headachs had finally diminished spontaneously, then ceased all at once, and without return. It was from this period (about four years back), that he had perceived that one of his eyes

* I abstain from concluding anything here relatively to the influence of professions on the production of cataract; it will be the same in reference to the constitution, and to the different features characterizing it in reference to certain diseases, &c. I shall develop hereafter the reasons that lead me to act thus.

commenced to decline: his health had been in other respects excellent.

The six other patients said only that they had been more or less subject to pains in the head; but those pains had either ceased several years before the commencement of the cataracts, or had in no way changed at that time, or finally, had only appeared after the sight had already been weakened.

In the twenty-seven women, the pains of the head had been more frequent; sixteen indeed, without regarding themselves as ill, have said that they had been frequently enough affected with them. In eight only, they have appeared to have some relation with the cataracts. Thus, five of them were not subject to them before their sight had commenced to be weakened; but at that period, or a little before, more or less violent pains of the head had commenced to be felt, and had lasted for a variable time.

In one of these women, a frontal pain commenced at the same time with the cataracts, lasted almost without relaxation for a year, was at times very violent, then ceased spontaneously.

In another, the pains appeared at the same time with the weakening of the sight, but came on only at rather distant intervals, lasting for two or three days each time.

In a third, they were very painful lancinations, that commenced in the posterior part of the head, arrived at the forehead, persisted some minutes, then ceased but to reappear two or three times during the day, and remained scarcely more than two days without being felt.

The other three women had for a long time been subject to pains of the head, when their sight commenced to be weakened; but at that period there was a manifest increase of them.

Finally, in the last eight there was no more relation between the cephalalgia and the cataracts, than in the six men, of whom I have last spoken.

SECT. VII.—*Ophthalmia*.—Some authors, considering the capsular cataract as rather frequent, and the inflammations of the exterior of the eye as capable of having some influence upon that of the deeper seated parts, it was interesting to examine whether habitual, or very frequently repeated, ophthalmia coincided in many cases with cataracts.

Fifty-eight patients have been questioned on this subject; seven only had had rather severe chronic ophthalmia, most frequently immediately after small-pox. In three of these seven subjects, there remained very slight clouds upon the cornea, but no trace of inflammation. In three others, the eyelids had continued to be the seat of a chronic phlegmasia; the conjunctivæ were red, the eyelashes in part destroyed. There had been, moreover, at the very period of the commencement of their cataracts, a little redness and pain of the eyes, during three or four weeks in one, during two and five

months in the other two. Finally, in two patients, who anteriorly had never had ophthalmia, the eyes had been a little red for some weeks, at the period at which they were operated on.

SECT. VIII.—*Suppression of Hæmorrhoids, or of the Menstrual Discharge*.—There are few diseases, in the production of which a great part is not made to be played by the suppression of some habitual, either normal or abnormal, discharge, and especially by that of hæmorrhoids or of the menses. It is true that little faith is placed in it for the production of cataract in particular; nevertheless, Ténon says that he has remarked that the progress of the disease is generally very rapid in women arrived at the critical age; and Tartra assures us that that is the period at which they are the most subject to it. However it may be with these assertions, the following is what I have observed: in twenty-three women, who have been questioned relatively to the period of the cessation of their menstrual discharge, there have been found seventeen, in whom the cataracts had commenced five, ten, even thirty years after that period, which scarcely agrees with the opinion of Tartra; five were still regular at the moment at which the sight commenced to decline; in one only, the disappearance of the menstrual discharge had coincided with the commencement of a cataract; but the progress of the disease was not very rapid, as Ténon would have it, for, at the end of a year, the affected eye still saw well enough for the patient to have been able to guide herself had the other been lost. At that period she was seized with an erysipelas, her face swelled enormously; that affection lasted eighteen days, during which the cataract made so much progress, that after that time the eye could no longer distinguish the light from the darkness. As to hæmorrhoids, of thirty-three subjects questioned on this point (twenty-eight men, five women), twenty-eight had never had them, the other five, all men, had had them, or still had them. In one only they appear to have some relation to the cataracts; this was a vine dresser, of 25 years of age, who had had, during twenty years of his life, very painful, and frequently bleeding hæmorrhoids; then they had gradually diminished, and finally completely disappeared. It was from that period that he had perceived the weakening of his sight.

SECT. IX.—*Heredity*.—For a long time back, cataract has been regarded as capable of being hereditary, and therefore, examples of families, of which several members have been attacked by this affection for two or three generations.

If the question of heredity be one of the most difficult to resolve *rigorously*, when there is question of extremely frequent diseases, and such as without admitting any hereditary predisposition, but from the fact

alone of their habitually attacking a great proportion of a given population, must frequently be met with in several members of the same family, it is not, I believe, the same for the cataract, which, without being rare, cannot, however, it is manifest, be compared in frequency with phthisis, for instance; or it is impossible, at least in my opinion, not to believe that there is, in many cases, a disposition common to several members of the same family, a disposition which causes them to be affected with cataract, from the fact alone that they belong to that family.

The following, moreover, are my reasons:—Of 39 subjects (22 men, 17 women), who have been capable of giving certain information upon the point in question, 22 have affirmed that none of their parents had ever had the least affection which could lead to a suspicion of cataract; 10, on the contrary (4 men, 6 women), have assured us that one or several members of their family had been affected with this disease; almost all of them had undergone the operation, so that there could be no doubt upon the diagnosis.

I have been enabled with regard to heredity to determine the rather curious case of a woman whose grandfather, uncle, two aunts, two cousins (all on the father's side), had had the cataract, and had been operated on. She herself, at thirty years of age, had been affected with the same disease; finally, of the four children she had had, one had come into the world with a cataract, recognized by M. Wenzel; and what is remarkable, neither her father, nor her mother, nor her sisters, had ever presented anything similar*.

Besides these ten well-marked cases, seven other patients still have said that one or several of their parents had lost the sight, and most frequently at an advanced age; it is probable that in some of them at least, this may have been in consequence of an opacity of the crystalline, but I have been unable to acquire any certitude thereon.

Thus, in the fourth part, at least, of the cases I have studied under this point of view, the cataract had affected several members of the same family. It is impossible, it seems to me, to see therein an effect of chance.

SECT. X.—*Blows, Insolation, &c. &c.*—

It is known that some external accidents have in certain cases, with predisposed individuals, occasioned an exciting cause of cataract. When the effect follows very closely, the circumstance regarded as the cause, and when the disease has, moreover, a much more rapid course than usually,

* M. Roux has operated for cataract upon three brothers, aged from thirty to forty years, born in England. Their father and their grandfather had the same disease, and they had a brother much younger than themselves already affected with it.

there is every reason for believing that that is not a simple coincidence. Several examples of this kind are preserved in the thesis of Dr. Tartra. He relates from Ténon, who had been eyewitness of the facts, that a lady who was struck on the eye by a bottle-cork, had that eye next day affected with cataract: a potter entered into his oven while it was still hot, he came out of it with two ripe cataracts. Fabrice de Hilden has seen a lady of above fifty years of age, become blind in one night by the formation of two cataracts, without pain or inflammation, and that, after having wept for several days for the loss of one of her relations. A surgeon of Mayence relates the history of a man, in whom a cataract was suddenly developed after a repast at which he had got intoxicated. It is known, finally, that one of the accusers of the celebrated Desault got into a violent passion on learning that he had been restored to liberty; on the very instant one of his eyes lost the faculty of seeing, and next day it was remarked that he was affected with a cataract.

Dr. Carrou Duvillards has seen in three sexagenarian individuals, a cataract developed very rapidly after a blow from a bottle-cork; at the end of a few days the opacity was already perceptible; it became complete in the course of the year; the sight remained uninjured in the eye which had not been struck. He has seen the same accident occur in two women, of from twenty-five to thirty years of age, who had received, one a blow from a racket club, the other a blow from a billiard queue.

I have not met with a single case in which such striking circumstances as those of which I have just spoken, have preceded the commencement of the cataract. Of fifty-seven patients questioned in this point of view, the following are the only ones that have presented anything analogous.

1st. In a woman, of whom one of the eyes had already been affected with cataract, the second commenced to be weakened immediately after prolonged weeping; but a month afterwards, the blindness had not made great progress, and at that period it was operated on.

2nd. In a man, the sight commenced to decline some months after he had received a sufficiently violent blow to blacken the skin of the parts adjacent to the eye; but the progress of that cataract was slow.

3rd. A third had a fall upon the loins, immediately after which he caused himself to be bled several times, and kept his bed during fifteen days; two months later he awoke one morning, having the sight very much diminished, while on the day previously he saw very well.

4th. A fourth was bitten near the eye by a horse, which caused a wound, of which he suffered for fifteen days; from that period it seemed to him that that eye had become slightly weakened, but the real or

at least evident commencement of the cataracts did not take place for several years afterwards.

5th. A fifth, who was a public coach-guard, having one summer's day looked intensely at the sun, one of his eyes became rapidly weakened, and some days afterwards, he could no longer distinguish the light from the darkness.

6th. A sixth, finally, had received a splinter of wood upon one of the eyes, which remained red and painful for four or five days, became weaker from that moment, and at the end of three or four months was already lost. I have quoted these examples to shew that the cases in which cataract can legitimately be attributed to an accidental cause must still be rather rare, although assuredly nothing is more frequent than blows or wounds in the vicinity of the eye.

The 5th and the 6th example appear to me to be the only ones in which it can be admitted that the accident supervening a little before the commencement of the cataract cannot be altogether foreign to it. It must have been remarked, that in passing in review the different circumstances that may be considered as causes of the cataract, I have frequently confined myself to announcing the facts, without drawing any conclusion, either negative or positive. Relatively to sex, age, hereditary, &c., it has not been so, because in them there was no chance of error; but, could I legitimately say, even if I had had very high numbers, and very marked differences, that the cataract coincides particularly with such or such a temperament, with such or such colour of the eyes, or of the hair, that it affects particularly long-sighted individuals? From the fact of a great number of those whom I have observed, having been field labourers or old military men, ought I to conclude that it attacks *principally* those who are incessantly exposed to the sun or to the inclemency of the air? No, doubtless, I should not; all that is possible, but all that is very far from being demonstrated*.

It is not, indeed, from the absolute number of times that any circumstance presents itself before the commencement of a disease, that it is permissible to conclude that it is or is not the cause of that disease; it must, moreover, be known, whether in the proportion observed, it be not met with as frequently in cases in which there exists no morbid state. Thus, from there being found in a given number of patients affected with

cataract, three who have the hair black, for one having it white, forty having the sight long, for nine having it short, &c. &c., I shall beware of concluding that the disease is met with proportionally more frequently in black-haired individuals, than in those having the hair white; in those long sighted, than in those short-sighted, &c.; who knows, indeed, whether this be not the ordinary relation of black hair to white hair, of long sights to short sights? Thenceforth, from this ratio being maintained in the persons affected with cataract, it is clear there would be nothing particular to be concluded therefrom. There is something more, namely, that it may very easily happen that precisely the reverse of what it appears to be at first sight, may be found to be the truth. Thus, I suppose that in a given population, there are met with six individuals having the hair brown, for one with the hair white; then that in a certain number of cataracts, three be found with brown hair, for one with white hair; it must rigorously be concluded therefrom, that cataracts far more frequently affect persons with white, than those with brown hair. These reflections are fully applicable to the study of the influence of professions. Who can, indeed, say that the agriculturist is predisposed more than others to cataract? That there enter each year into the great hospitals of Paris, four persons affected with cataract, inhabitants of the country, for one inhabitant of the city, what does that prove, if the population furnishing the first be three or four times more considerable than that of Paris—if perhaps it be seven or eight times more so?

All these things are of the last evidence; so is there reason for being astonished at seeing the greater part of authors give their long lists of *causes*, without the least hesitation, without having the air, even of suspecting that they are neglecting precautions which are after all quite indispensable—happy, even when these pretended causes have existed a certain number of times, as simple facts of coincidence, and without even seeking whether they have had any real influence. Had the illustrious Corvisart analyzed his own work under this last point of view only, he would, doubtless, not have said that the tailors are very frequently attacked with aneurism of the heart, for he would have seen but a *single observation* in the whole volume, as relative to a workman of that profession.

M. Parent Duchatelet, in his excellent work upon the cause of ulcers is, to my knowledge at least, the only author who has clearly indicated and sufficiently developed this source of error, so is he extremely reserved in his conclusions, which are very limited; that is, unhappily, what must frequently enough happen when mere attention is given to produce things proved, than things that are possible—rigorous re-

* The fact of the equal frequency of cataract in the two sexes would tend even to prove that it is erroneously ascribed to the exposure of the eyes to the sun, to an ardent fire, the application of the sight to very brilliant objects, &c., considered as causes of this disease; it is manifest, indeed, that women are generally far less exposed than men to these diverse influences.

sult, than more or less hazarded inductions. That is, however, I think the route that must be followed without ever deviating from it, even at the risk of having applied to oneself, that more witty than just saying, that there are some folks who, from over prudence, dare not conclude that two and two make four.

Yet, in spite of the insufficiency of all these data for arriving actually at rigorous conclusions, I have not thought proper to pass them over in silence. This kind of research, notwithstanding its apparent barrenness, is in my opinion of a major importance. What is, indeed, wanting to enable us to obtain *legitimately* all the conclusions contained therein? There are wanting results of another kind, those of statistics—precious science, still of recent date, but which, perhaps, even owing to that, marches at once, and with a firm step, towards truths the most useful and the best determined. How many medical questions will there not be susceptible of a truly scientific solution, after statistics shall have furnished the indispensable bases of them? Can its aid be done without, when there is question of studying age, profession, habitation, kind of nourishment, customs, &c. &c.? Will it not be a sort of statistic, that may be called physiological or pathological, that recourse must be had to if it be desired to appreciate precisely the so frequently invoked influence of the temperaments of hereditary, and even of the different diseases one upon another? or, all that, being necessarily within the domain of observation—as all that must necessarily finally be known—is it not proper to assemble on the other hand materials, which, although useless at present, will not be the less useful hereafter?

—o—

CLINICAL LECTURES,

Delivered at the South-Eastern General Dispensary, Dublin.

BY DR. M. ADAM.

—

Pathology and Treatment of Diarrhœa and Peritonitis.

GENTLEMEN — At our last meeting we were engaged in the consideration of diarrhœa and dysentery, and after having taken a view of a few cases illustrative of both our diseases, which lately occurred among dispensary patients, we entered on the general history of the former affection. You may recollect, I pointed out to you some of the leading causes of diarrhœa, which it may be useful to recapitulate briefly; I endeavoured to explain in the first instance, how diarrhœa might arise from vicarious action—in other words, from a translation of a morbid or healthy action from a distant part to the intestines. 2dly, How it might be caused by ingesta proving irritating, either from un-

due quantity, improper quality, idiosyncrasy of constitution, imperfect digestion, or fœcal accumulation. 3dly, We alluded to morbid secretion either of the biliary fluid, or of the mucus of the intestines, as a frequent cause of diarrhœa. 4th, We also mentioned epidemic influence, that mysterious power of whose essence we are ignorant, but of whose effects we have had such melancholy experience, as occasionally giving rise to this affection, which may appear either uncombined with other diseases, or co-exist with a similar affection of the respiratory mucous membrane, or form the termination in many cases of an epidemic catarrh. 5thly, We described diarrhœa as in some instances emanating from a sympathetic influence exerted by the nervous system on the intestinal canal, as is exemplified when pure mental emotions, which of course act primarily on the brain, produce an increased secretion from the bowels, giving rise to diarrhœa. And lastly, We mentioned diarrhœa, as occasionally occurring as a symptom in the course of other diseases. I beg leave also to recall to your recollection, the importance that was attached to an investigation of the cause in every individual case of this affection; a correct knowledge of which, not only giving us more just ideas of the pathology of the disease, but also serving as an important guide in practice, without which, we should pursue empirical and often abortive attempts to combat symptoms, while we left the root of the evil unattended to, because unknown.

I shall now proceed to take a short view of the principal varieties which this disease may assume, and of the peculiar treatment most suitable to each. The first that I shall mention, is what has been denominated fœculent diarrhœa, in which the dejections are natural in appearance, but unusually loose and copious: this is the diarrhœa crapulosa of Cullen, and the diarrhœa of Dr. M. Good; it often arises from over-eating, or from diet of an irritating quality; it also sometimes occurs from fœcal accumulation, the consequence of constipation, and also often appears in the commencement of other forms of the disease. It is to be considered as an effort of nature to free the alimentary canal of matter irritating from quantity or quality; consequently, in the early stages we should not attempt to check it by opiates or astringents: we should rather assist nature in getting rid of the offending cause; while the stools continue fœculent in appearance and considerable in quantity, we should exhibit mild purgatives; castor oil in the first instance, is perhaps the most suitable, and if a second dose of purgative medicine is required, rhubarb with magnesia in some aromatic water may be given; by thus expediting the expulsion of the irritating cause, we both shorten the duration of the disease, and also diminish the chance of its becoming chronic, or terminating in colonitis or other forms of the affection. After the

operation of the purgative, if the diarrhœa still continues, and ceases to present a feculent appearance, we may then conclude that it is maintained by a morbid irritability of the mucous membrane, and at this period, we may give opiates with advantage, either in the form of Dover's powder, or the tincture in chalk mixture.

The 2nd form—bilious diarrhœa—is usually connected with an excited or inflammatory state of the liver or duodenum, causing an undue secretion of bile; the stools, at first feculent, afterwards present a bright yellow or green colour; in this form, local bleeding is useful before we exhibit internal medicines; after which, mild mercurials, such as the hydrarg. c. creta, or pil. hydrarg. combined with Dover's powder, may be given with advantage; demulcents, such as the infusion of linseed, may also have some effect in diminishing the irritation of the acrid bile, and towards the close of the disease, opiates may be exhibited with the best effects.

A 3rd form—mucous diarrhœa—has with some propriety been called a catarrh of the intestines; it may exist as a sporadic disease, but it more frequently prevails as an epidemic in conjunction with similar affections of other mucous membranes, and is occasionally attended with some degree of fever; it is characterized by the stools consisting principally of mucus, which is sometimes passed in large masses, or in flakes mixed with more liquid matters. Dr. Crampton observes, "That it sometimes assumes a more chronic or sluggish course in old delicate patients affected with dyspepsia; in such cases, both the stomach and bowels are often loaded with depraved mucus secreted in great quantity, and which appears to be the cause of the diarrhœa; in such cases the mucous membrane is sometimes found thickened and congested, and the follicles erected and patulous; and unless a suitable treatment is adopted, the disease degenerates into a permanently chronic state, probably attended with atrophy or dropsy." Our object in the treatment of this form of the disease should be to allay irritation by abstinence, demulcents, diaphoretics, either with or without opiates, confinement to bed, pediluvia, warm fomentations to the abdomen, &c. If these means fail, and much griping or tenesmus is present, Dover's powder and chalk mixture will be useful, or a starch enema with tinct. opii, may be given with advantage. Purgatives are, in general, improper.

4th form. Serous diarrhœa. The stools in this variety present a watery appearance; sometimes they appear almost limpid, or mixed with minute flakes or shreds; it may arise from the same causes as mucous diarrhœa, and seems to depend on a very irritable state of the exhalent vessels of the mucous membrane, which may in some instances amount to inflammation, though in others it appears to be connected with an atony or loss

of tone of those vessels, as was exemplified in our last lecture, when speaking of passive diarrhœa. Its treatment may be considered as essentially the same as the mucous species; diaphoretics, opiates, and astringents, will be proper; when it has assumed the chronic form, tonics may be used in addition to these means. I have been in the habit of employing the infusion of cascarrilla or columba; the decoction of logwood is also a valuable remedy in such cases; \mathfrak{z} i or \mathfrak{z} ij may be exhibited three or four times a day, and an opiate at night, or the opium may be combined with acetate of lead, with the best effects; in the latter stages of mucous and serous diarrhœas, or even in the early periods, when I have been satisfied that no inflammatory action or fecal accumulation existed, I generally use the following powders:—

R. Hydrarg. c. creta, Pulv. Cret. comp.;
Pulv. Doverii, $\bar{a} \bar{a}$ \mathfrak{z} i.

M. divide in pulv. vi.; sumat. i, ter quaterve, in die.

Isometimes of course vary the proportions of the ingredients according to circumstances; I know of no combination so generally useful; I have often found it stop the disease in a day or two; I recommend at the same time a diet of rice and milk, pediluvia, external warmth, abstinence from much bodily exertion, &c. &c.

Other forms of diarrhœa besides the four we have been considering, are mentioned by writers. Dr. Good describes one which he calls tubularis, in which membrane-like tubes, whitish, viscous, and inodorous, are discharged from the bowels; this substance consists of coagulable lymph, and is the result of a peculiar inflammation of the mucous membrane. The same author describes another form, which he calls chylosa, in which the stools present a milky appearance, which is probably owing to the absence of bile in the intestines, in consequence either of deficient secretion, or obstruction in its passage from the liver to the duodenum; when the treatment suitable to hepatic disease or jaundice will be required.

The disease called by old writers lientery, in which the food passes rapidly and little changed through the bowels, has been considered by Cullen and Good as a form of diarrhœa; it probably is connected with a deficient or altered secretion of the gastric juice, and also perhaps of the biliary fluid. It is an appearance which may occur in almost any form of diarrhœa, and can scarcely therefore be considered as a distinct species; for its cure it requires the treatment suitable to dyspepsia, conjoined with mild mercurials and alteratives.

Atonic or passive diarrhœa may supervene in the latter stages of almost any of the preceding forms. It is characterized by frequent dejections, accompanied with little or no pain, tormina, tenesmus, or other uneasy feeling; it continues for a considerable time,

and is attended with a weak pulse and more or less prostration of strength; the evacuations are sometimes partly *feculent*, but in most cases consist of the serous or mucous secretions of the bowels; it may sometimes be cured by a course of mild mercurials, combined with opiates, such as are the Hyd. c. creta, with Dover's powder, tonics, and astringents, as we before mentioned, such as calumba, cascarilla, decoction of logwood; and acetate of lead and opium will frequently be necessary.

I have now given you a short view of the different forms of diarrhœa, as distinguished by the appearance of the dejections, in which I have followed principally Dr. Crampton, who has given the best description of this disease which I have met with*. We have seen that the discharges from the bowels may be either *feculent*, bilious, mucous, serous, membranous, white or chylous, *lienteric* or consisting of unaltered aliment. But I should give you an incorrect idea of the subject, if I led you to suppose that these various appearances constituted in every case an essential difference in the nature of the morbid affection. Several of these appearances may occur either simultaneously or successively in the same case; thus, an irritation producing at first a *feculent* diarrhœa, may also cause an increased discharge of bile, mucus, or serum; or a diarrhœa, caused primarily by increased mucous secretion, may first be *feculent*, if there happen at the time of its attack to be much local accumulation in the large intestines, and may afterwards be bilious, from the liver participating in the morbid excitement of the mucous membrane; or if the biliary secretion happens to be the first that is morbidly increased, the irritation of superabundant bile in the bowels will stimulate the mucous follicles and exhalents to secrete an increased quantity of their peculiar products. However, in most instances one or other of these discharges will predominate, and it is of some practical importance to determine which is morbidly increased; by such inquiries you will be in general enabled to adopt a rational plan of treatment, and be prevented from the indiscriminate use of a certain favourite set of formulæ for every disease, which, though it may save the practitioner the trouble of thought, and be even successful in some cases, when the remedies happen to be suited to the nature of the disease, yet will be useless or injurious in many others. Thus, many persons are in the habit of prescribing chalk mixture and tincture of opium, in almost every case of purging; this, though undoubtedly a useful combination, when judiciously applied, will prove particularly injurious in certain cases; for instance, if the diarrhœa is the consequence of irritating

matter in the *primæ viæ*, what could be more absurd than to exhibit this medicine before the bowels had freed themselves of the offending matter? The effect obviously would be to diminish or suspend peristaltic action, thereby preventing the expulsion of the cause of the disease. On the other hand, in mucous and serous diarrhœa, when we have good reason to believe that the bowels contain little except their peculiar secretions, which continue to be poured out in consequence of increased irritability, purgatives, though useful in the former case, would be highly injurious in this, as they would only exasperate the irritability of parts already preternaturally excited. In diarrhœa connected with indigestion, stomachic medicines would be useful, but if the disease originated from increased irritability, or inflammatory action of the mucous membrane, their stimulant effects would be injurious. We see then the value of forming correct ideas of the nature of the different morbid actions which exist in the various modifications of what may be termed an individual disease. The word diarrhœa simply expresses an effect, in fact a prominent symptom, which may depend, as I have endeavoured to shew, on different, and even opposite conditions of the intestinal mucous membrane. What two pathological states, for instance, can be more opposed to each other, than mucous diarrhœa arising from increased vascular action, and passive diarrhœa caused by atonic relaxation?—the former, a state in which the functions of the parts are excited beyond their healthy actions, the latter a condition depending on debility. What two indications can be more opposite than the treatment in *feculent* diarrhœa, which demands the use of purgatives, and other forms which require astringents and opiates? These considerations are worthy of the closest attention from the medical student, and apply, not only to this, but to a variety of other diseases. A correct conception of the peculiar morbid action which exists in each individual case, should be the grand object which the practitioner ought to endeavour to attain; when he is right in this point he will experience comparatively little difficulty in the selection of suitable remedies; but in such investigations he should recollect that the same case may, at different periods of the same disease, bring a different and even opposite condition, and consequently require a corresponding change in the treatment.

I shall now, gentlemen, proceed to give you a short general history of dysentery, but before we commence the consideration of the causes, symptoms, varieties, and treatment of the disease, let us endeavour to settle what is meant by the term dysentery, or whether the more modern term *colitis*, expresses exactly the same morbid state. Cullen, who until lately was the reigning

* *Cyclopædia of Medicine*, Article, "Diarrhœa."

authority in nosological distinctions, defines dysentery to be a contagious pyrexia, with frequent mucous or bloody stools, the natural alvine evacuations being in general retained, accompanied with tormina and tenesmus. He conceives the disease to depend chiefly on a preternatural constriction of the colon, occasioning spasmodic efforts, which produce severe gripings, and which efforts, propagated downwards to the rectum, occasion there frequent mucous stools and tenesmus. His favourite spasm, which he so often assumes as the proximate cause of disease, he seems to conceive to be sufficient to account for the whole phenomena of dysentery. The evident symptoms of inflammatory action, the pain, frequent sensibility of the abdomen to pressure, sanguineous discharges, and accompanying febrile action, seem to have been entirely overlooked, or imputed to a wrong cause by this ingenious theorizer, as were also the more decided proofs of inflammation which *post-mortem* examinations disclosed. We see here an instance of the gross error into which an undue attachment to favourite theories may lead even a mind of the first order. Had Dr. Cullen reasoned impartially on the symptoms and morbid anatomy of dysentery, he could scarcely have come to this conclusion. Passing over minor authorities, let us consider the view which Dr. J. Johnson, of London, takes of this subject; he has had much experience of this disease, and his writings, deservedly popular, have much influence on medical opinion throughout the British empire. He supposes dysentery to depend primarily on obstructed perspiration and biliary secretion, in his work on the liver, and on tropical climates; that these are the two first links in that morbid chain which connects the remote cause with the ostensible form of the disease; he tells us, that the torpor of the vessels of the surface, causes an increased quantity of blood to be directed on the interior, while the blood circulating in the *venæ portæ*, is checked in the liver by a corresponding torpor in the secretory vessels of that organ: the consequence of this must be, an unnaturally great quantity of blood in the *cæliac* and mesenteric vessels; the perspiration being stopped, a vicarious discharge of mucous and acrid serum is thrown from the extremities of the turgid mesenteric vessels upon the internal surface of the intestines, which, by this time, are in a state of irritability; uneasiness in the bowels, frequent desire to go to stool, and mucous discharges, are the result. If the plethora be great, blood will be poured out from the mouths of the distended mesenteric vessels—hence inflammation and ulceration may ensue. If the cells of the colon contain hardened fæces, they will be grasped by the irritable circular fibres of the intestines, and rings or strictures will augment the tormina and griping in the bowels. Such is Dr. Johnson's view of the essence of this disease,

which may be shortly summed up in these words: Dysentery, according to him, arises from increased quantity of blood in the venous system of the intestines, caused by suppressed perspiration and biliary secretion, the discharges being efforts of nature to relieve the parts of their unusual load of blood. He considers inflammation of the mucous membrane, as a frequent effect, though not the cause of dysentery. This view is much nearer the truth than Dr. Cullen's doctrine of spasm; but Dr. Mason Good appears to me to have attained a more correct view of the true nature of this disease; he defines it to be inflammation of the mucous membrane of the large intestines, griping and tenesmus, frequent and often bloody dejections, the *æces* seldom discharged, and in small quantities; he tells us, that there always is some degree of inflammation in the colon or rectum, occasionally perhaps extending higher: an inflammation of a peculiar kind, which has a strong tendency, when violent, to run into gangrene, but when mild, exciting that increased flow of mucus which is common to inflammations of all mucous membranes. He divides the disease into two species; 1st. simple dysentery, in which the fever is slight and unperceived, the fæces when discharged, evacuated without considerable pain, of a natural quality, and affording ease. 2nd. Dysenteric fever, accompanied with pyrexia, great loss of strength and depression of spirits; the fæces, when discharged, of various colours and consistence, highly fœtid and mixed with putrid sanies, sebaceous matters, or membranous films—contagious. This appears to me to be a just view of the disease; both the symptoms during life, and the morbid appearances after death, prove that in dysentery there is always more or less inflammation of a part or the whole of the large intestine, sometimes attended with little or no symptomatic fever, in other instances accompanied with a decided pyrexia; in the latter form often epidemic to a wide extent, and sometimes, there is reason to suppose, contagious.

Peritonitis.—Peritonitis is the term applied to inflammation of that serous membrane which lines the interior of the abdominal cavity, and gives an external tunic to all its viscera. This affection is, when simple, perfectly distinct in its seat from enteritis or inflammation of mucous and other coats of the intestines, though the two diseases have been often confounded. The serous covering of the stomach or bowels may be in a highly phlogosed state, while the mucous membrane is unaffected; and even in some cases peritonitis induces the very opposite condition to inflammation in the mucous membrane, namely, a state of anemia, or diminished quantity of blood in its vessels; for it has been occasionally found that, when intense signs of inflammation have been detected after death in the peritonæum, the

mucous membrane has been remarkably pale. This is in accordance with the law laid down by Andral, that when an hyperæmia, or preternatural quantity of blood is determined to one organ or texture, it may cause the state called anemia or preternatural diminution of blood in the vessels of another; thus the inflammation of the peritonæum may cause the blood to abandon the intestinal mucous membrane and leave it exsanguineous, the blood flowing to, and accumulating in the inflamed part; this takes place in some instances, but the very reverse effect happens in others, which I shall hereafter illustrate. Simple peritonitis then is to be regarded as an inflammation of a texture distinct from that which is affected in enteritis, and we shall hereafter consider the criterion by which we are enabled to distinguish the one affection from the other during life; but first let us take a short view of the symptoms which peritonitis presents in the adult. Its great characteristics are abdominal pain, tenderness, and tumefaction, accompanied with more or less symptomatic fever, and disturbance of the functions of the stomach or bowels; it is true, these three symptoms may be present also in some cases of enteritis, but not to the same degree, nor are they so invariably co-existing as we find them to be in inflammation of the peritonæum.

Peritonitis frequently commences with more or less fever, perhaps with shivering succeeded by heat of skin, accompanied with a frequent small pulse; these symptoms may precede for some time any complaint of abdominal pain or tenderness; however, it is not uncommon for pain in the abdomen and increased sensibility to pressure, to be the first symptoms complained of. This pain generally becomes the most urgent symptom, and may assume various modifications; it is often of an acute lancinating character, sometimes limited to a small space, where it may continue unabated during the whole course of the disease; at other times it shifts its situation, and occasionally pervades the quarter part of the whole of the abdomen. It may be constant, or come on in paroxysms, which Dr. Abercrombie says, arise from the passage of flatus through the bowels. In some cases there is little or no pain except when pressure is made, and then the patient rather complains of an acute tenderness than actual pain; this sensibility of the abdomen to pressure is sometimes so exquisite that the patient cannot bear the weight of the bed coverings, and even endeavours to relieve the inflamed surface from the pressure of the abdominal muscles, by lying on his back with his knees drawn up. The respiration is frequent and interrupted, chiefly performed by the thoracic muscles, the descent of the diaphragm producing an aggravation of the patient's sufferings; consequently, full inspiration, coughing, sneezing, vomiting, or the evacuation of the urine

or fæces, aggravates the pain. Tumefaction of the abdomen is generally also present; this in the early stages, probably arises from distention of the intestines by flatus, but at the more advanced periods, is caused by effusion into the peritoneal cavity. The swelling is in general equal and regular, and accompanied with some degree of tension; along with these symptoms there is often present hiccup, nausea, and vomiting. The bowels are generally constipated, though occasionally relaxed. The pulse is frequent, from 120 to 130 in a minute, feeling contracted and firm, like a small whip-cord or harp-string. The tongue is covered with a whitish fur, and the thirst is often very great. As the disease advances the abdominal pain, tenderness, and tumefaction become aggravated, the face pale, features contracted and covered with a cold sweat, the pulse more frequent and weaker, and the patient sometimes dies in sixteen or twenty-four hours after the commencement of the attack, but in other instances the disease is protracted and does not terminate fatally till after thirty or forty days.

On the approach of death the abdominal pain generally ceases, the pulse becomes weaker, the surface generally, and especially the extremities become cold, the tumefaction of the abdomen increases, the face appears sunk and hollow round the orbits, and sometimes the contents of the stomach are discharged, apparently without the effort of vomiting; sometimes delirium, coma, or convulsions precede the fatal termination, though occasionally the mind is undisturbed to the last.

Such are the symptoms of a well marked case of peritonitis; in some instances, however, many, and almost occasionally all, the above signs may be absent; this constitutes the variety called latent peritonitis, which requires a good deal of discernment to discover during life. Acute peritonitis may end in resolution, effusion, gangrene, or by assuming the chronic form.

Resolution is indicated when the abdominal pain, tenderness, and fever subside, and the functions of the neighbouring organs are re-established; critical evacuations, such as diarrhoea, copious perspiration, or abundant urine, sometimes also mark this termination, the pulse becoming slow and soft, and the sleep quiet and refreshing.

The symptoms which characterize effusion, are a sense of weight and oppression in the abdomen, accompanied with irregular chills, softness of the pulse, paleness of the face, and coldness of the extremities; at the same time there is a diminution of the abdominal pain and tenderness.

Gangrene is a rarer termination; it is indicated by a small intermitting pulse, hippocratic countenance, sudden cessation of abdominal pain, and speedy death. When acute peritonitis does not prove fatal in the course of fifteen or twenty days, it usually

subsides into the chronic form, which is in many respects a peculiar affection, and on which I shall not at present dilate, as at some future period an opportunity may be afforded of illustrating this variety of the disease by some dispensary cases.

The above description refers to uncomplicated peritonitis in the adult, but it presents some peculiarities as it affects the child and puerperal female, on which I do not propose to enter, neither will our time allow us to go into a detail of the predisposing or exciting causes, which are generally speaking the same as other internal inflammations. My object is to present to your view the most important characters by which it may be recognized and distinguished from other diseases, preliminary to the exhibition of an individual case. I shall therefore say a few words on its diagnosis, principally in reference to other inflammations of the stomach and bowels. In gastritis the pain and tenderness are confined to the region of the stomach, the vomiting is more urgent and more easily excited by food or drink, and the thirst and desire of cold liquids more intense. When it happens, however, that the peritoneal coat of the stomach is exclusively inflamed, the difficulty of distinguishing the two affections will be greater, as all or the greater part of the above symptoms will be present; in such instances, an attentive consideration of the general history of both diseases, and of the succession of symptoms in the individual case, may assist our diagnosis.

In enteritis the sensibility to pressure is not so great as in peritonitis. The action of the diaphragm in inspiration or coughing does not produce so much suffering, nor is the pain so much aggravated by motion of the body. In peritonitis the pain is more superficial than in enteritis, is of a more acute character, and is not so often accompanied by vomiting or diarrhoea; this latter affection, jaundice, or dysentery, are not uncommon in enteritis but do not frequently occur in peritonitis. Rheumatism may affect the abdominal muscles; the pain in such cases is principally at their origin or insertion, shooting to the false ribs and spine of the ilium; these peculiar characters, together with the absence of fever, abdominal tumefaction, vomiting or constipation, will enable us in most cases to distinguish this affection from peritonitis.

Neuralgic pains sometimes attack the abdomen; they may arise from spinal irritation at the origin of those nerves which supply the anterior abdominal parietes. Their fugitive character, the absence of pyrexia, abdominal tumefaction, or disturbance of function, and the general history of the case, may sufficiently point out their nature; in such cases we should examine the spinal column, and if pain or tenderness is discovered at any particular spot, it will assist in confirming our diagnosis.

Hysteria occasionally simulates peritoni-

tis, but the temperament of the patient, the incongruity of the symptoms—for instance, great abdominal tenderness, with no fever or accelerated pulse, a hurry or labour of respiration, different from the short thoracic breathing of peritonitis, a sudden shifting and changing of the painful part, and sometimes the appearance of decided hysterical symptoms, will enable us in general to identify hysteria. Colic frequently presents severe abdominal pain and tumefaction, but may in general be distinguished from peritonitis, by the absence of fever, the suddenness of the attack, the state of the pulse, and the pain being generally rather relieved than aggravated by pressure. These are the principal diseases which may be confounded with peritonitis. Our time would not allow us to consider others, which may occasionally present some of the features of this disease; to enter into such a detail would require a notice of all the diseases to which the abdominal viscera are subject. The foregoing observations refer to simple acute peritonitis affecting the adult; but this disease may co-exist with other morbid affections of the subjacent viscera, or of more distant organs; the most common complication which occurs is that with gastritis or enteritis. This may take place in different ways; either the inflammation may have been primarily seated in the peritonæum, and afterwards extend itself by contiguity or continuity of substance to the intestines; or the intestinal mucous membrane may have been the first attacked, and the inflammation extend in a similar manner to the peritonæum; in either case the inflammation of the two textures may exist simultaneously; but in other instances, a metastasis or transference of morbid action from the one surface to the other may take place; the peritonitis may disappear, and immediately after, the mucous membrane may become inflamed; or the reverse may occur; the enteritis may subside, and peritonitis immediately after supervene. A case has lately occurred among our dispensary patients, illustrating the supervention of inflammation of the colon during the existence of peritonitis, which existed some days previous to the attack of the dysentery; the symptoms characteristic of inflammation, both of the serous and mucous coats of the intestines, continued to co-exist during the whole course of the patient's illness. The history of the case is as follows:—Eliza K., age thirty-five, a widow, sanguineo-nervous temperament, spare habit; on my first visit on Monday June 3rd, she complained of a severe pain in the abdomen, chiefly in the hypogastric and both inguinal regions, coming on in paroxysms of considerable severity, the pain continuing in a minor degree during the intervals. This pain is much aggravated by any motion of the body, especially turning in bed, coughing, full inspiration, or evacuating the urine or fæces; it is

also excited in an exquisite degree by the slightest pressure on the affected parts. She finds most ease from lying on her back with her knees drawn up; countenance contracted and expressive of suffering. The abdomen feels hot, but is not swollen; she also complains of some pain in the back when she attempts to stir, and of a severe headache. Pulse 90, small and contracted. Tongue a little whitish, urinescent. Catamenia regular. Bowels severely purged; had ten dejections yesterday and three to day, accompanied with tenesmus; fæces slimy, mixed with blood, sometimes whitish, at others greenish; no vomiting or sickness of the stomach. Took ill nine days ago with rigors, heat, pain and soreness all over the abdomen, vomiting and constipation. She was then leeches, stuped, and salivated, with considerable relief, but the above symptoms, though mitigated, still continued and became aggravated on Saturday, with the addition of the bowel complaint, which has continued till the present time; her gums are still sore from mercury. I directed eighteen leeches to be applied to the abdomen, the bleeding from the leech bites to be encouraged by fomentations long continued, and an enema of starch mucilage, with forty drops of tincture of opium to be given towards evening. The next day, Tuesday the 4th, I found her much relieved; the leeches had bled well, abdominal pain and tenderness much diminished, though it still existed to a certain extent; the purging had declined, but still continued frequent; salivation nearly gone; 8 more leeches were directed to be applied to the hypogastric region, and the following ordered:—

Rx. Calomel, gr. xii; Opii, gr. ii. M. Fiat massa in pil. iv dividend. sumat j 4tis horis.

On the 5th I found her considerably better; abdominal pain and soreness on pressure very inconsiderable; pulse weak, but it had lost that contracted character which it had on my first visit; some vomiting; bowels confined; she had taken all the pills; no pyalism. Contin. Pil. ut heri. Rx. Ol. olivæ, ℥ i; Sal. sodæ, ℥ i; Decoct. avenæ, ℥ xvi. M. Fiat enema statim injiciend. The abdomen to be fomented with warm flannels, sprinkled with turpentine.

On the 6th I found her much better; very little abdominal tenderness on pressure, and no paroxysms of pain; she can cough, turn in bed, and lie on either side, without exciting much pain. She had eight or ten dejections since I saw her yesterday, unmixed with blood, and nearly natural in appearance, attended with some tormina, but no tenesmus. Pulse 102, soft, weak; tongue a little red in the centre; no vomiting to-day, but a good deal yesterday; countenance much improved, having lost that contracted expression which her features exhibited the first day I saw her. Intermit. medicam.

Rx. Hydrarg. c. creta, gr. x; Opii, gr. ii.

M. in pil. ii, dividend. sumat j 4tis horis. Rice diet. Turpentine stupes to the abdomen.

7th. But one stool since yesterday, about two hours ago, solid, and natural in appearance, preceded by some griping pain. Slept well all night; abdominal pain and tenderness diminishing; pulse 100, soft. Rep. pil. i, h. s. et fatus terebinth.

8th. Has had a return of purging since yesterday; 13 stools, yeasty in appearance, mixed with some blood. Complains much of pains in the hips and back; but little abdominal tenderness; tongue white, reddish in the centre.

Rx. Pulv. Doverii, 3ss; Pil. hydrarg. gr. x. M. Fiant pil. viii, quarum sumat ij quartis horis.

10th. Took all the pills; no stool since Saturday; feels much better; still complains of pains in the hips; considerable pyalism; pulse 96, of tolerable strength; no vomiting; scarcely any abdominal pain or soreness.

Intermit. pil. Sumat haust ex oleo ricini.

12th. Nearly well; abdominal tenderness almost entirely gone; pulse quiet; functions natural. Intermit. med. Stupes to the abdomen at night: directed to attend to the state of her bowels.

This is a very interesting case when viewed in connexion with the subject which we have been discussing. It is evident from its previous history, that the patient had an attack of simple acute peritonitis nine days before my first visit: the co-existence of rigors, heat, abdominal pain and soreness, with vomiting and constipation, was sufficient to identify the nature of the affection. At this time she was leeches, stuped, and salivated, with considerable relief, by Dr. Houghton, but seven days after the commencement of the attack she had a return of the symptoms of peritonitis, probably from exposure to cold, or some other accidental cause, to which were added bloody stools with tenesmus, evidencing that the inflammation of the serous tunic of the intestines had gradually extended itself to the mucous membrane, and that a phlogosis of the two textures co-existed; for it was evident, I think, that the peritonitis did not subside on the supervention of the dysentery, as when I first saw her she exhibited, in addition to the bowel complaint, very decided symptoms of peritonitis in the lower part of the abdomen; she had pain in this region of a much more acute character than generally exists in mucous inflammations; it was aggravated by motion, coughing, or any other effort which excited the action of the diaphragm: this is highly characteristic of peritonitis, but is not commonly present in simple dysentery; the sensibility to pressure was very intense; this, it is true, is also the case in mucous inflammations, but it is more obtuse in character, and less in degree in such cases than in peritonitis. Her position,

INTRODUCTORY LECTURE

TO THE

COURSE OF CLINICAL SURGERY,

Now being delivered at the Hospital la Charité,

By PROFESSOR VELPEAU.

lying on the back with elevated knees, is also peculiar to the latter affection. There was no abdominal tumefaction, probably in consequence of the mucous inflammation affecting simultaneously a considerable portion of the large intestines, without being accompanied by any spasmodic constriction; the flatus, if it was generated, was therefore, it is most likely, discharged without accumulating so as to produce any abdominal distention. The pain in the back probably arose from the peritoneal covering of the bodies of the lumbar vertebræ and adjacent muscles being also inflamed. As the patient had been ill a considerable time, and her strength somewhat reduced by active treatment, I did not order general bleeding, though, under more favourable circumstances, I should have done so. I directed leeches to be applied to the abdomen, and the parts afterwards to be fomented for a considerable time. By this means blood was abstracted from the immediate vicinity of the inflamed parts, and was more likely to produce a favourable effect than if a greater quantity was abstracted from the system by venesection, without reducing the patient's strength so much. I also ordered an opiate enema, to quiet the tenesmus and purging.

The presence of salivation prevented me at this time from commencing the use of mercury. The next day I found her much better: the opiate enema had alleviated considerably the tenesmus and diarrhoea, but as there was still some abdominal tenderness present, I repeated the leeching, and as the mercurial action had subsided, I thought it advisable to renew it by the exhibition of calomel and opium. This I continued for some days afterwards, substituting the hydrarg. c. creta and opium when some pytalism began to appear, thinking that the calomel might be too irritating to the bowels, and that the hydrarg. c. creta would be sufficient to keep up the mercurial action which the calomel had established.

The treatment afterwards consisted in the continuance of the opiate and mercurial, the occasional use of mild aperients, by the mouth and anus, and the employment of turpentine stupes, as a substitute for blisters. This plan has succeeded to the utmost of our expectations, and when I last saw the patient I considered her as nearly free from all complaint. This case is instructive, both as exhibiting a specimen of peritonitis complicated with dysentery, and also as illustrating the efficacy of local depletion and the combination of opium and mercury in controlling intestinal inflammation.

At our next lecture, gentlemen, we shall conclude this subject by a general view of the treatment suitable to the acute form of peritonitis, and afterwards proceed to consider some other affections of the abdominal viscera.

GENTLEMEN—I shall proceed to show you that the best method to follow in surgery, ought to be likewise the best in medicine—or more fully to explain my ideas—that surgery cannot be separated from medicine, in no part, neither in the wards, in the lecture rooms, nor in clinical instructions, and that they ought both to be governed by the same philosophy.

Allow me to explain myself. In the present age, surgery is far beyond its etymology; it is no longer, as in former days, the humble servant of medicine. No person thinks in the present day of restraining it to the narrow circle of mechanical arts. Its province is so extended that it can be no longer bounded. It is true that manual operations always constitute its most apparent characteristic; but it is surgery, and not medicine, that now decides on the propriety and necessity of an operation. The word external pathology does not express it any better, for it seizes on the treatment of certain effusions, of certain collections in the head, in the chest, and in the abdomen, though they are internal diseases; whilst it abandons that of scarlatina, measles, urticaria, and pemphigus, which are however external diseases. The division of the healing art into *medicine* and *surgery*, does not really exist in nature. We can very well understand that certain physicians devote themselves specially to the practice of a particular class of diseases, that some of them attend only to those diseases that scarcely ever require the employment of mechanical means, or of local applications, whilst others practice quite the contrary; but in reality all that is arbitrary, and you will not find a lesion, called surgical, that will not in some points be complicated with a medical one, and in the same way there is scarcely a medical case that is not sometimes in need of the help of surgery.

Medicine is one, gentlemen; let us accustom ourselves to this idea. It may be hygienic medicine, surgical medicine, or pharmaceutical medicine, according to circumstances. Surgery is one of the most powerful resources of medicine, when it is clearly indicated; but it must not entirely depend upon medicine, nor can it ever with safety lose sight of it. Learn medicine then, if you wish to cultivate surgery with advantage; for to be a good surgeon you must also be a good physician. This assertion requires explanation.

The perfection of a surgeon is made to consist in using his instruments in the most graceful and the most rapid manner possible, in performing the most difficult operations in a few seconds, in dazzling the eyes of the spectators by the quickness of his movements, the regularity of his incisions, and the beauty of his apparatus. *Celerity and elegance* should be the law of each, the incontestible standard of the merit and ability of every surgeon. It is thus that non-professional persons judge, and this is also the mode of acting and judging followed by a great number of surgeons. You see them counting the seconds that elapse during an operation for the stone, for removing the hip or shoulder joint, and look for the applause of the audience when they have extracted a calculus, or removed a limb in as short a time as you would take to carve the wing of a fowl. Nothing can be more injurious than these pretensions. Surgery does not consist of legerdemain: *sat cito si sat bene*. *Extreme quickness, and elegance* are rarely united with *prudence and safety*. You have gained a minute, but your incision is too long or too short, too straight or too oblique; you have left more skin or less flesh than you had intended; in fine, the wound is not as favourable as it might have been.

Do not however think that I have any intention of advocating awkwardness or bungling in manual operations: I only mean to say, that to act rapidly and gracefully is more frequently dangerous than useful in surgery, and that a judicious slowness is in general safer for the patient. A bandage very quickly put on may please the eye, but it is not always well applied. Examine it, and you will see that it wants solidity; that it is too tight in one part, and not tight enough in another, and that many of the patients soon complain of it. The same observation applies with respect to cutting operations. *Very quick and PERFECTLY WELL* is almost as impossible in surgery as in every thing else. Besides, if a man who is obliged to submit to the knife, looks for one who will not uselessly prolong his sufferings, he should also seek one who will operate safely, and in that manner most likely to afford afterwards the most chances of success.

Thus, even in the performance of operations, art should give way to science; besides, is not that the least important point of surgical pathology? How many things must be considered before we operate on a patient! The first thing to be noted is, that all division of tissues is in itself a disease, and that the slightest laceration is a door opened to death; yes, gentlemen a door opened to death! In short, it is on the whole system of man on which we operate when we incise the weakest of his organs. The puncture of a vein may bring on phlebitis, and destroy the patient.

A leech bite may induce an erysipelas, and cause death. The incision of a finger often inflames the lymphatic vessels of the whole limb; the synovial membranes of the hand all the cellular inter-muscular tissue of the fore-arm, in such a manner as to cause the death of the patient. The point of a pin driven to the depth of half a line in any part of the arm would be sufficient to produce the same results. An operation on any part affects the tegumentary, the nervous, and the vascular systems. For, when the functions of the great wheels of organization are disturbed, who can tell where the evil will stop, or who can undertake to be able always to re-establish the normal state of the economy. An operation should never be performed without the most precise indications; without first having positively ascertained that the disorder which may ensue, will cause less danger than the disease that is removed. Another point should not be forgotten, it is that the lesion that you wish to remove is not a being independent of the being you endeavour to preserve. The disorder that it has produced may have caused other disorders elsewhere, and may have re-acted in turn over the entire. It may be only a visible branch of a tree that bears or that conceals a great many others. It is in vain that you would cut it; for, to succeed in surgery, you must be able to remove the whole disease.

You see then, that before taking the bistoury in your hand, you ought to calculate all the injurious influences that any operation may exercise on man in health; you must consider, moreover, the whole extent of the disease that you have to combat; all the organs, all the viscera, all the symptoms, must be scrupulously examined; you should be convinced that the disease, if left to itself, or if treated in any other manner, would more endanger the welfare of the patient.

Lastly, when the operation is completed, you have not finished. We no longer say, as in the time of Paré or F. Jacques, *I have operated on you, may God cure you*.

The formidable consequences that I shall hereafter mention, you must endeavour to prevent. When they supervene, you should perceive them at a distance, in order to combat them in time. You should know how to resist them by every possible means, and be able to pursue them to their inmost intrenchments. Then, gentlemen, you no longer act as surgeons; it is to medical knowledge and medical means, that you must most frequently have recourse.

These exigencies, which I am far from exaggerating, and which I can but glance at superficially, will sufficiently indicate to you, that in surgery, the art of flourishing the knife is neither the great object, nor the most difficult to learn. In a word, the talent of diagnosis treating the indications, a profound knowledge of medicine should predominate. Nevertheless, there is no reason why the use

of the knife should be despised. All things else being equal, the more you excel in it, the more successful you will be. It is a portion of science that should be cultivated with the greatest care, which it is dangerous to neglect; but then, it must not be at the expense of the other departments of science, nor should we use it to the exclusion of all the others. After having brought surgery within the pale of pathology, I hasten to add, that medicine would be wrong, in its turn, to diminish the importance of surgery. Surgery, taken in its natural and most extended limits, will be nothing less than effective medicine—that which we wish to apply to all diseases.

Surgery has had its epochs of timidity and audacity; we have seen it only approach the patients with the knife or the fire in hand, while at other times neither the one nor the other dared be employed. But in our days you see individuals who maintain that the true end of pathology is to reduce more and more the number of operations. Abernethy went so far as to declare, that every operation was a disgrace to surgery*. It is with this, as it is with facts: the dispute is about words, and not things. If surgery always consisted in mutilations, it would undoubtedly be a duty to diminish it; but this is not its usual character. The object is to know, that in a given disease, the employment of the knife, or of mechanical means, will cure better or quicker, or expose more or less to unfavourable results, than the hygienic or pharmaceutical means. It is neither temerity nor timidity, but a sound knowledge and prudence that are wanted in surgery.

But to resume. Clinical surgery ought to be studied in a different manner from theoretical. To separate the one from the other would be ridiculous: they are sisters, and should go together.

There must be facts in surgery as in every other science: to slight them would be absurd. But in order that facts may be good in surgery as well as in medicine, they must combine conditions so numerous and so difficult to discover, that they are very few in number, and we must examine them most rigidly, before assigning them a definite place in science.

Surgery is not a distinct science, but it rests continually on medicine, over which it sheds a lustre; it requires peculiar studies, which are also involved in difficulties.

Foreign Medicine.

MEMOIR OF DUPUYTREN.

(Continued).

So much for M. Dupuytren as a practitioner; let us now consider him as a teacher.

* Sir Astley Cooper declared, that the best surgeon was he who performed the fewest operations.—T.

When he took his seat in the amphitheatre of the Hôtel Dieu, he took upon himself great responsibility. He succeeded a professor whose chief fame rested on his ability as a teacher. M. Pelletan disappeared (for what reason it was not well known), from the place where the students so much liked to see him; and the latter were not much disposed to receive with indulgence the new comer, whose unexpected and unprecedented advent appeared to them irregular. Even before Pelletan himself, Desault had for a long time made French surgery shine with a splendour before unknown. It required more than ordinary resources to avoid being crushed by such predecessors. M. Dupuytren performed all that any one had a right to require of him; and if he did not hush all the voices that were raised against him, he at least reduced to silence those who only doubted his capacity. Since 1815 the surgical clinique of the Hôtel Dieu has lost nothing of its ancient renown. No other clinique in France can be compared to it, either for the number of its pupils, the abundance of its cases, or the talent of its professor. In fact, M. Dupuytren understands to perfection what clinical teaching demands, which is a very difficult attainment, judging by the small number of those who succeed in it. Clinical lectures in surgery, differ greatly from a course of surgical lectures. The subject-matter of a course may be distributed beforehand. The professor constructs for himself a regular plan, which he fills up with all the developments he thinks appropriate. He has time to mature his ideas, to systematize his theories; he can pass over in silence what he does not know, skim over that of which he knows but little, and dwell particularly on what he knows best. He has sufficient time to consult authors, to quote their opinions, and to corroborate his precepts by the examples of the masters of the art. In short, a course may be made, very much like a book. A clinique is a very different thing. The professor has here constant occasion to speak extemporaneously, because the matter of his lecture is not settled beforehand, but by the chance which sends to-day a strangulated hernia, to-morrow a fracture, and three or four different cases in the same day. Arrived with the pupils in the presence of the patients, it is necessary he should explain their cases, give his opinion, pronounce a diagnosis, and give his reasons for it, prescribe the treatment, and explain the motives for his prescriptions. His task consists, perhaps, more in actions than in words. Always on the alert, always overlooked, always accompanied by a crowd, whose every look is a question, he must satisfy all, he must reply to all. We thus perceive how it is that more practical knowledge, and more intellectual resources, are necessary for a clinical professor, than for him who delivers a course. He does not set himself at the bedside of the patient, learnedly

to develop fine theories, and to descant more or less eloquently on a prepared subject—by no means a difficult achievement for one who adds to solid information, some degree of literary taste and conversational powers. Here, on the contrary, theories which offer so many advantages to one who is giving a dissertation, are no longer worth anything. It is not now so much a matter of *science* as of *art*. The professor ought to speak not so much of *diseases* as of the *diseased*. He ought, in every individual case, to point out to the student all the peculiarities of such and such an affection, in such and such a patient, and thus to exercise him gradually in the practice of an art, which is not and cannot be learned from books. Now, the difficulty of this task is great; for the subjects under observation are continually changing, as I have already said. It is by no means impossible that a physician, altogether incompetent as a practitioner, but versed in the literature of the science, and endowed with a certain facility of address, might give a tolerable course of lectures. We have even at the present day, several books on practical medicine, written by men whom the sight of a patient disgusts, and who would not stoop to write a prescription; and these books enjoy a certain portion of reputation. But for a clinical course, practical talent takes the lead of everything; for the professor ought especially to preach by example. It is above all things necessary, in the case of surgery, that he should be a good operator: the interests of the chair and his own reputation imperiously demand it. We may add that a clinical professor, continually exposed to the controlling observation of those who see him act and hear him speak, ought, in order to maintain himself in that position, to be either a man of great merit, or a complete fool. We have living proofs of both members of this alternative, in the school of Paris.

Excellent as a practitioner, M. Dupuytren possesses what is really the most important of all the qualifications of a clinical professor; but with that first and capital requisite, he combines numerous others. A professor ought to speak with facility, and to have, in some degree, the talent of improvisatizing. He ought to be endowed with a memory sufficiently retentive to recollect all the particulars of his patient's complaints, and of the different remedial measures he has ordered. With a deep sense of what his situation requires, he ought to have sufficient command of himself to return every day to the same things he has said a thousand times, in spite of the ennui connected with the repetition. It is highly important he should recollect, that he has to do with inexperienced auditors, to whom things must not be said by halves; auditors whom it would often not be difficult to *dazzle*, but whom it is far better to *instruct*;—an end which patience alone can accomplish. Now, in all these respects M.

Dupuytren is well nigh irreproachable. We will not say he is an *orator*, in the ordinary sense of the word, for that would be matter of censure instead of eulogy; but we will say that, although a little verbose, and sometimes diffuse, he speaks in a manner which is altogether attractive and appropriate. His diction is not destitute of elegance. It displays indeed occasionally, when the subject requires it, a degree of literary elaboration which is not displeasing. There is in his words a polish and refinement, which are rarely met with in hospitals; but so far removed are his expressions from commonplace, that I believe he takes more trouble with his elocution than is generally supposed. But whatever may be thought of these observations, which relate only to accessories (though highly important), and the justice of which may be contested, I rely with confidence on a more solid and appreciable merit. This merit consists in an inexhaustible abundance of practical reflections of the highest interest, and an excellent memory, which furnishes in profusion curious analogies; in a facility of thinking and speaking, which enables him, in a very short space of time, to seize all that is important in any case, and to develop it in a satisfactory manner; and in an understanding sufficiently exercised to teach him to accommodate himself to his audience. The students understand and feel all this, though they might not be able to explain the motive which leads them to the Hôtel Dieu, rather than elsewhere. As for myself, instructed by personal experience, and by the numerous comparisons I have made, I do not hesitate to affirm my belief, that M. Dupuytren's clinique may be offered as a model of that kind of instruction. To learn what ought to be done, and what is necessary to success, we must go to the Hôtel Dieu; to learn what ought to be avoided, we must go to St. Come, and other places beside.

But the most brilliant qualities—sagacity in diagnosis, imperturbable sang-froid in operating, facility of elocution in teaching—does all this suffice to merit general esteem, and to obtain the suffrages of all? No; for with all this, his qualifications may not be complete. There is a good faith which is required of every eminent man, but especially of a clinical professor. By this good faith I understand that candid impartiality, and that praiseworthy modesty, which leads a man to “render unto Cæsar the things which are Cæsar's,” and to render homage to truth, wherever it may be found. This good faith does not permit us to conceal a fault, either from the fear of public blame, or from a wound of our self-love. It does not permit us to proclaim a success which does not exist; or to eulogize or depreciate a proceeding, not because it is good or bad, but because its inventor bears this or the other name. It will not allow us to avail ourselves

of another's goods (as Bouvart said) without leaving our acknowledgments for our creditors. It accepts what is good, from whatever quarter it may come; and never holds its tongue when an opportunity presents itself of speaking well of a neighbour. Without this good faith, the most eminent qualities may become the instruments of deception.

In surgery, as well as everything else, a little ambition does no harm. It is even praiseworthy and necessary, when united with merit; for without the powerful impulse of that passion, merit would be apt to loiter on the road; but there is no need that the passion should be always burning, when the reasonable and attainable end of the journey has been reached. If there existed a man greedy of renown and of domination, whose character offered, in all its degrees and shades, the destructive energy of ambition, the inflexibility of pride, the jealous irritability of self-love, a vanity extending to the minutest details; if he dared to pretend that in all the chairs and all the books of surgery in Europe, there was only one eminent name, and that name his own; if he should wish that, struck with mental sterility, his contemporaries should invent nothing, perfect nothing, *do nothing*, in short, but by his order, and in virtue of his approbation, and that French surgery should only be the surgery of his hospital; if he pretended to reign alone, in the Oriental style, absolute in authority, having at his command the voices, the pens, and the practice of all the other professors of his art; if he seemed to desire that the labours of his predecessors and his contemporaries should be reduced to nothing, in order to have it said that surgery began and ended with him; if, dissatisfied after all, he disdained the most flattering eulogies as insufficient, and considered himself ill-treated by the slightest criticism, because it seemed to cast a doubt on his great capacity; if, in fine, instead of encouraging dawning talent, he appeared to see with alarm in each of his colleagues a rival, ready to dispute with him the sceptre of surgery, and to supersede him in his brilliant post, by some manœuvre of a kind analogous to that by which he himself obtained it; such a man might obtain flatterers and slaves, as all power of whatever description will; but generous hearts will separate themselves from him, and will refuse him their homage.

Let us now return to the clinique at the Hôtel Dieu. That clinique, so brilliant in every respect, so profitable to the students, from the sources of instruction which it opens, is a school of which we ought to be cautious; for the truth is not always respected there. There, as elsewhere, faults are committed, but they are never spoken of; or, if they are avowed, it is only when they can be repaired by a decisive display of brilliant talent. There they are not so deficient in tact as to censure themselves openly; but they invoke the tes-

timony of the auditors—of the pupils; and they lay under contribution all the subtleties of diplomatic language, and their own powers of invention, in order to express a thing without saying it, and to make themselves understood without speaking. Who has ever heard within those precincts the name of any living professor cited, whether for good or ill? Nothing is denied; nothing is attacked; but everything foreign is buried in the deepest silence. Is a well attested success obtained? all the trumpets of the hospital and the Journals sound it out. The fact is proclaimed, and exposed in public to the light of day. Cases which have not succeeded are scarcely mentioned, or altogether forgotten. Does a patient upon whom an operation has been performed get well? he is borne in triumph to the amphitheatre, and the case is added to the long list of cures. Does he perish? he is never spoken of more; and the body is swallowed up, along with the truth, in the damp vaults of the Hôtel Dieu. Is it desirable to justify a diagnosis by a *post mortem* examination? if the inspection confirm it, the pathological appearances will be shewn to the people. If there has been an error, the preparation will be taken away inadvertently, or much disfigured by the inexpertness of the anatomist; and we may sometimes enjoy a little comedy, got up by two or three persons the day before, for the mystification of the audience. Why so many precautions? Wherefore so many paltry combinations? Wherefore? It is to avoid that terrible confession, "I have made a mistake!" These pretensions to infallibility, seconded by so much perseverance and by so many means direct and indirect, still better display the spirit of domination of which I have already spoken, and which can scarcely redound to the advantage of science. The Hôtel Dieu is not a school, but a government. There are some subordinate ministers, and a chief, whose will is the law. The amphitheatre is not a simple gymnasium, set apart for familiar conferences; it is a divan, in which men, more or less prostrated, listen in silence to the words which the master deigns to let fall from his lips. This crouching subordination of minds and of wills, to the mind and the will of one man, is painful to be seen; but it exists. There are, in some wards of that hospital, such genuflections and habits of silence and mystery, as put us in mind of a seraglio. The chief is never spoken to but when he asks a question; and the body of him who replies becomes gradually curved, as by a superior force, and under the influence of an awful regard. A direct question put to the master, would be considered an act of temerity, of which there are but few examples on record. Every one shrinks before him. Even men whose talents and honourable exertions have made them his colleagues in that hospital, lessened, eclipsed, or rather annihilated by his ascendancy, cannot, in spite of

themselves, maintain that footing of equality which men of science ought to preserve among each other. Almost confounded with the host of students who encumber the wards, they are but rarely admitted to a consultation with the chief; and even then, the part they play is so subordinate as to be pitiable. Equally perturbed whether he smiles or frowns, they lose three parts of their faculties.

I forbear to pursue a subject which would lead me much farther. Some will perhaps think this criticism objectionable, from its personality. I have considered that objection; but, indignant at that scene of despotism, I could not refrain from raising my voice against it. Those who do not know the first surgeon to the king, will charge me with imprudence and exaggeration; those who do know him, will give me credit for much moderation and forbearance. But, however this may be, it is not inappropriate to give expression here to sentiments which everybody entertains, but to which, from various motives, no one gives utterance. I know the adage which says, that the truth is not always to be spoken; but I do not admit it without restriction. I am neither the friend nor the enemy, nor the pupil, nor the flatterer, nor the colleague of the surgeon of the Hôtel Dieu. I have observed his conduct as a public man, and have stated freely the impression which has been left on my mind. Carping objectors may find something to quarrel with in my words, but I do not fear they will suspect my intentions.

M. Dupuytren has written only two or three works, of which the following are the titles:—1. *Propositions on some Points of Anatomy, Physiology, and Pathological Anatomy* (1803). 2. *Memoir on the Effects produced on Respiration by the Ligature of the Pneumogastric Nerves*. 3. *Memoir on the Fracture of the Fibula*. I am acquainted only with the last work, which is diffusely and heavily written. The first volume of the *Memoirs of the Royal Academy of Medicine*, which is about to appear, will contain, it is said, a long announced and long expected Memoir by M. Dupuytren, on *Artificial Anus*.

Reviews.

Rudiments of Physiology, in Three Parts.

Part I. On Organism. Part II. On Life, as manifested in Irritation. Part III. On Life, as manifested in Sensation and in Thought.

By John Fletcher, M.D. F.R.C.S.E.

Lecturer on Physiology, and on Medical Jurisprudence. Part. I. 8vo. pp. 155.

Edinburgh: Carfrae & Son. London: Longman & Co. 1835.

THE celebrated author of the work before us stands pre-eminent among modern physiologists, and we felicitate ourselves in

being the first to place a part of his erudite, comprehensive, and incomparable lectures before the medical world. When we commenced their publication, we were immediately opposed by rival journalists—the one publishing the lectures of M. Magendie, the other, since dead, those of Dr. Graves, of Dublin—but both very speedily abandoned their undertakings, as far inferior in every possible respect to the discourses which now form the substance of the present production. In proof of this statement, we shall insert Dr. Fletcher's preface, which modestly but forcibly shews that no British or foreign physiologist “gives such a grasp of the whole (of physiology), and that so continuously and with such direct reference to the business of particular physiology, as can be of any considerable service to the student.”

It would be a work of supererogation on our part, to give extracts from the elaborate production before us, as we have already published the whole of this part of the work in this Journal; and we shall therefore content ourselves with placing the preface before our readers. In our judgment, Dr. Fletcher's *Physiology* exceeds all national and foreign works of modern times, in research, erudition, science, and comprehensiveness; and will be a work of reference and standard authority. After this expression of our conviction of its superior merits, we need not state that we strongly recommend it to our readers. It ought to be placed by the side of Haller's, Blumenbach's, Magendie's, Richerand's, Bostocks, Tiedemann's, and Mayo's *Physiology*; indeed, it far surpasses most of them as a systematic work.

“The following work will contain, in a somewhat amplified form, the matter of the earlier part of a six month's course of lectures on physiology, which the author has for some years been engaged in delivering annually; and it is published principally for the purpose of obviating an inconvenience which he has every year experienced—the necessity either of treating in too cursory a manner of certain general subjects, a knowledge of which is quite essential to a full comprehension of any particular point of physiology, or of occupying a longer time with questions belonging equally to all the functions, than could be well spared from the detail of each. The ordinary works on physiology in our language commonly plunge almost immediately in *medias res*, dispatching the consideration of these gene-

ral subjects in some eight or ten pages—a space which is quite inadequate to communicate any available information; and of those works which treat expressly of these subjects—admirable as many of these are, and unwilling as the author of the following pages would be that his production should be compared with even the least meritorious of them, each in its own particular department—he still knows of no one which gives such a grasp of the whole, and that so continuously, and with such a direct reference to the business of particular physiology, as can be of any considerable service to the student. Authors always succeed in proving to their own satisfaction, if not to that of the public, that their lucubrations are a desideratum; and he may therefore be excused if he entertain this opinion with respect to the present undertaking, particularly after the repeated solicitations of his pupils that he would engage in it. That his book will be of material use to *them* he does not hesitate to believe, and he hopes that it may not be quite useless to others.

“It has been the uniform practice of the author, in treating in his lectures of each of the individual functions, to begin with a short description of the apparatus by which this function is performed in all tribes of organized beings, and afterwards to state the vital conditions necessary to its performance. Now it is impossible to speak of the structure of any individual apparatus or organ without referring frequently to the subject of organism in general, including the considerations of the general classification of organized beings, the character of their several organs, the properties and general distribution of their tissues and fluids, and the nature of the chemical principles entering, or supposed to enter into their composition; and it is equally impossible to treat of the vital conditions necessary to the performance of any individual function without making frequent allusions to the subject of life in general, including the considerations of the mutual relations of the functions, the nature and sources of irritability or vitality, of sensibility or of the faculty of thinking, and the character and mode of action of the various agents by which these vital susceptibilities are excited. It is of these general subjects then that the following work will treat, more or less fully according as they appertain more or less directly to the proper business of physiology. It will be divided into three parts: the first treating of organism in general, the consideration of which, as belonging to the proper business rather of phytozoology and zoology, of anatomy, descriptive and general, and of organic chemistry, than of physiology, will be comparatively summary, and in many parts little more than commemorative; the second treating of life as manifested in irritation, the consideration of which, as proper to physiology, will be

considerably more full; and the third treating of life as manifested in sensation and in thought, the consideration of which, involving, as it does, the business partly of physiology, and partly of moral philosophy, will be in the former relation ample, while in the latter it is more concise. The first and second parts are intended as introductory to a detailed description of what is called the organic functions alone, including respiration, circulation, deposition, absorption, assimilation, and generation; and the third as introductory to that of what are called the animal functions, including sensation, thought, and voluntary motion; and care will be taken that the order in which every fact is stated, and every allusion made, directly correspond with that in which these several functions will fall subsequently to be treated of. This must be the author's apology for adopting frequently a less lucid arrangement, and one perhaps less illustrative of the subject immediately in hand, than might have been followed had he had no ulterior object in view; and the same prospective purpose must also plead his excuse for introducing occasionally an apparent superfluity of examples, and these not always perhaps the best that could have been selected, had the point directly at issue been the only thing to be considered. In choosing such examples, while he has always brought forward as many as possible of those which he will have occasion afterwards to introduce in other associations, he has confined himself almost exclusively to these; so that the present work, although perhaps, considered *per se*, less perfect than it might have been without these encumbrances, will be, he hopes and believes, more conducive to his main object of rendering the general subservient to the particular. Students for the most part do not readily take up mere didactic precepts, nor long retain abstract conclusions which have been drawn for them by others; but if frequently presented with numerous facts, from which such precepts and conclusions necessarily flow, and these in various relations to each other, the wished for deductions are gradually forced upon them, and, so implanted, are retained with all the pertinacity of real or fancied discoveries of their own: they cannot be successfully led to the goal, but by the same road by which their instructors have reached it. The numerous references to delineations of the organs alluded to in the first part are intended principally as a guide to such students as may wish to consult the originals of the large diagrams in oil, which the author has for many years been in the habit of exhibiting in his lectures—a plan which he is proud to find so many other public teachers have since adopted.

“In entering upon the composition of the following pages, the author imposed upon himself two rules which he has never

infringed—the one, to confine the text to acts and arguments, without any interlarding of authorities or *ipsissima verba* of authors, all which will be found in the foot notes—the other, never to speak directly or indirectly of himself. By attention to the former of these rules, the philosophy of the science has been kept quite distinct from what may be called the literature of it—a plan in his opinion highly conducive to perspicuity; while by attention to the latter, the besetting sin of egotism, into which he might have been occasionally betrayed, from finding that not a few doctrines which he conscientiously believes were taught for the first time by himself have been since appropriated by others, has been effectually avoided.”



Elements of Bedside Medicine and General Pathology; with a Sketch of the Origin, Progress, and Prospects of Clinical Medicine and Surgery; Exposition of the Creeds of Materialism and Vitalism; a Confession of Mixed Medical Faith; the Art of Observing in Medicine, &c. &c. By J. Stewart Thorburn, M.D. 8vo. pp. 473. London: Longman and Co. 1836.

THIS is a complete history of clinical medicine, both ancient and modern, and of the various topics mentioned in the title page. The style of the work is too inflated, and often pedantic, as the terms, “bedside medicine, general disease-discourse, mixed medical faith, quarrying the chief facts, architecting a literary edifice,” &c. &c. amply testify. Notwithstanding such imperfections, the work proves the author to be a learned physician, and one intimately acquainted with antiquated and standard clinical medicine. In the first section he quotes all the eminent writers on the subject in this and other countries, of the past and present epochs, and traces clinical or practical medicine from the ancient Babylonians and Persians down to the present time. He contrasts it in the different ages and nations, and very ably criticises and exposes its imperfections. He compares it in this country and continental Europe,¹ exposes the defects and abuses in our hospitals, dispensaries, &c., and suggests means for improving the study of clinical medicine in its fullest meaning.

The second section of the work is entitled, “Exposition of the medical creeds of materialism and vitalism, and of vegetable,

brute, and human organization.” This part is most ably executed, and “matter-of-fact practitioners, hoaxing, forging, cooking and trimming, false facts, homœopathism, allopathism, antipathism, expectantism, eclecticism, Broussaism,” &c. are duly estimated, and some satisfactorily refuted.

The third section is “On the art of observing, and of conducting observations in medicine.” This is also treated with great ability and success.

The last part is quaintly headed, “Elements of general disease-discourse, or pathology, technically so called.” This section gives a clear exposition of nosology, etiology, symptomatology, and of the invasion, development, duration, and modes of termination of diseases, and of convalescence, relapse, and recurrence.

Such are the contents of the work before us. It must be obvious that the great variety of subjects discussed render an extensive analysis of the whole a matter of difficulty and impracticability to a hebdomadal journalist. He can only give a general opinion on the merits or demerits of the whole. In our opinion, the author has evinced great research and erudition in the execution of his task, and has added an interesting and instructive work to medical literature.



The Cyclopædia of Anatomy and Physiology.

Edited by R. B. Todd, M.B., &c. Part IV.

Dec. 1835. Published every alternate Month. Sherwood and Co.

THIS part equals the preceding ones in the excellence of its execution. The article Aves, by Mr. Owen, is perhaps the best in any language—Axilla, by Dr. Benson, is very creditably done—Axillary artery, by Dr. Hart—Azygos, by Dr. Harrison—Back, by Dr. Benson—and Bile, by Mr. Brande, deserve great praise—Bladder, normal anatomy, by Dr. Harrison, and Bladder, abnormal anatomy, by B. Phillips, F.R.S., are not surpassed by any modern surgeons—Blood, by Dr. Edwards, and Blood, morbid conditions of the, by Dr. Babington, are perfect descriptions.

We entertain no doubt whatever, but that this will become a standard work in medical literature. It has, even now, an extensive circulation, and eminently deserves it.



1. *Education Physique des Jeunes Filles, ou Hygiène de la Femme avant le Mariage.* Par A. M. Bureau-Riofrey, M.D., &c. 8vo. Paris: Dulau and Co. 1835.
2. *Physiologie du Mariage, ou Meditations de Philosophie eclectique sur le bonheur et le malheur conjugal.* Par M. de Balzac. 12mo. t. ii. pp. 596. Bruxelles.
3. *L'Art d'Elever les Enfants, considerations sur l'Education Physique et Morale, aux Peres et aux Meres.* Par M. Froissant, Professeur, &c. 8vo. pp. 264. Paris: 1835.
4. *Nouveau Traité d'Hygiène de la Jeunesse, suivi des Maladies les Plus frequentes à cet age.* Par M. Simon (de Mentz), D.M., &c. 8vo. pp. 447. Paris: G. Bailliere. 1836.

1. *Physical Education of Girls, or Hygiène of Woman before Marriage.*
2. *Physiology of Marriage, or Meditations on Conjugal Happiness and Misery.*
3. *Physical and Moral Education of Infants, addressed to Parents.*
4. *A New Treatise on the Hygiène of Infants, and on the most frequent Diseases at that Age.*

THE first work on our list is very ably executed, and contains a correct account of the subject of which it treats. The author gives the physiology of woman at the different epochs of life, the influence of external agents on her economy, her temperaments, habits, hereditary predispositions, development, deviations and deformations, the importance of physical education, and the hygienic precepts, at every period of life. The work will be interesting both to the general and medical reader.

The second production embraces the physiology and hygiene of marriage, and its influence on morals. It is popularly written, and perhaps more intended for the public than the medical profession.

The third work is superficial, and intended for the perusal of parents.

The fourth is an excellent and scientific treatise, but its contents might be advantageously compressed. The author gives a very minute description of hygiene of infancy and childhood, and appends a history of the most common diseases of these periods of life.

We need scarcely observe that the hygiene and pathology of early life deserve as much attention as those of any other period; and it is to be regretted that so few works of this kind are to be found in our language.

—o—

RECLAMATION OF DR. COLLINS—PURITY OF THE ELECTORS AT THE DUBLIN LYING-IN HOSPITAL.

To the Editor of the London Medical and Surgical Journal.

SIR—As I doubt not your object is to publish facts in the Journal edited by you, I beg you will insert this communication in reply to the following observations in your review of a Practical Treatise on Midwifery, lately published by me.

In mentioning the Dublin Lying-in Hospital, you state, "The chief physician is elected by a few voters; that there is no grosser job in the medical offices in the United Kingdom; that the individual is invariably elected by family interest or intrigue; incompetent persons get appointed, and up to this hour none of them was ever able to publish even so imperfect* a volume as the present." You continue, "the election is a farce played for the purpose of excluding talent; the best proof of the evil results of it, is simply this, that masters were appointed who did not possess the slightest claim to preferment, while the most competent have been repeatedly, or rather invariably excluded—witness the exclusion of Doctor Montgomery and others."

The above statement is as unfounded as it is unconnected with the work.

The governors of the lying-in hospital consist of sixty individuals, according to the charter of the Institution. The following is a list of the present Governors and Guardians:—

President—His Excellency the Lord Lieutenant.

Lord Primate; Lord Chancellor, V. P.; Lord Mayor of Dublin; Bishop of Kildare; Commander of the Forces; Dean of St. Patrick's; Archdeacon of Dublin; Duke of Leinster; Archbishop of Dublin, V. P.; Fredk. French, Esq., V. P.; Lord Maryborough; Rev. J. F. Robinson; Earl of Charlemont, V. P.; Earl of Belmore; Alderman Sir A. B. King, Bart.; Rev. C. C. Berrisford; Lord Ashtown; Earl of Leitrim, V. P.; John Joseph Henry, Esq.; Richard Manders, Esq.; Abraham Colles, Esq.;

* "This report of obstetric practice is the most valuable in the medical annals of this or any other country."—See Ryan's Midwifery, p. 225; on Dr. Clarke's Hospital Report.

Samuel B. Labatt, M.D.; Lord Bishop of Cork; Provost, Trinity College; Lord Langford; Robert Collins, M.D.; Wm. Rathborne, Esq.; Earl of Armesley; Rev. Dr. Stewart; Acheson Lyle, Esq., K.C.; George A. Grierson, Esq.; Rev. Thos. Goff; Edward Litton, Esq., K.C.; Alderman West; John Chambers, Esq.; Rev. W. G. Wakeley; Viscount Bangor; Honourable John Plunket; Rev. Sir F. L. Blossie, Bart; Rev. Charles Boyton; Rev. Dr. Ebrington; Sir J. K. James, Bart.; Rev. John M. Staples; Alex. Montgomery, Esq.

Where, I would ask, could more competent governors be found in any country, and how does this agree with your uncalled-for assertion? As to the master being *invariably* elected by family interest, &c., and the most competent candidates invariably excluded, this is equally correct with the "*few voters.*"

I am the only individual who was connected with any previous master. I had the *distinguished honour* of being *unanimously* elected, and, I fear not, the governors, my professional brethren, and the public, consider I discharged the duties of my office satisfactorily.

As to the incompetence of my predecessors in office, it is sufficient to mention Drs. Clarke, Ivory, Labatt, and Pentland, to place *this* on an equality with the errors before noticed.

With respect to the exclusion of the respectable physician you named, he *never* was a candidate for the office of master, *nor could* he, as he has not been assistant in the hospital.

I regret extremely, sir, you did not seek information from some friend qualified to furnish you with a just statement, previous to publication, and thus avoid maligning the character of an Institution and its principal officers, which in cooler moments, I have little doubt *you* will also regret*.

I have, in conclusion, to thank you for the early notice taken of my work, and although you state we differ in opinion in many points, I feel we are both at liberty to advance what, from experience, we conscientiously believe correct. You have inadvertently given the table from my work containing the *proportion* in which some of the most eminent practitioners use both *crotchet* and *forceps*, as if the *latter* instrument had *alone* been used; by looking to this, you will perceive the inaccuracy of the remarks made by you, page 692.

My object in giving the statement I have done, on the use of instruments (see p. 28), was to shew that the crotchet was used by many continental physicians, and also by some in Britain, as frequently as in our

hospital, and by others much *oftener*, notwithstanding the forceps being in *constant* requisition.

I shall feel obliged by your directing your attention to the result of the tedious and difficult labours in the hospital, and the cause of death in such as proved fatal, which perhaps might somewhat lessen the difference of opinion between us respecting the use of instruments. See pages 25, 26, 27, 31, 365, and 487.

Hoping you will receive this communication in a friendly manner,

I am, Sir,

Your very obedient,

ROBT. COLLINS.

Morrison Square, Dec. 30, 1835.

—o—

The London Medical

AND

Surgical Journal.

Saturday, January 9th, 1836.

PURITY OF ELECTION AT THE DUBLIN LYING-IN HOSPITAL.

"Oh! save me from my friends."

IN our last number we exposed the dexterous manualism of the Dublin College of Surgeons, and we supposed we had done with medical abuses for some time in the sister isle. But scarcely had we concluded, when we received a letter from Dr. Collins, late master of the Dublin Lying-in Hospital, purporting to be a refutation of some unpalatable truths, which were declared about elections at that institution, in our late review of his work. Our correspondent requests us to publish his communication verbatim, which we do unhesitatingly, though it was rather unreasonable to expect us to insert the names of sixty governors, who, with the exception of three, are non-professional, in proof that this number should not be designated a few voters, though it will appear by the sequel that the real electors at the Dublin hospital are no more than *three*.

Admitting the whole sixty to have voted at any election, which is extremely improbable, as some of them are peers, others prelates, &c., and others non-residents in Dublin, what are the

* On reference to the evidence before the Parliamentary Committee on Medical Education, you will find mine strictly accords with this statement.

remainder but a few voters, compared to the governors of similar hospitals, that amount to one or two thousand? As to their competency as governors, it has never been questioned by us, though as electors it reasonably might be. Thus, what do the whole sixty, excepting the three physicians, Dr. Labatt, Dr. Collins, and Dr. Colles, know about the competency, or fitness, or ability of a candidate for the important office of master to such an extensive institution? Are the fifty-seven not likely to support the friend or candidate patronized by the three medical governors, who might perhaps be aptly designated "a few voters?" Thus, Dr. Clarke was father-in-law to Dr. Collins at the time of his election; Dr. Labatt was successor and friend to the former; Dr. Colles their colleague as consulting surgeon for many years—all having, from their eminence, the greatest influence with the said fifty-seven governors, which secured their candidate, and would exclude any other in Christendom. If this system of election is not a gross job, and if family interest is not occasionally employed in the selection of the master of the Dublin Lying-in Hospital, language has lost its meaning. That Dr. Collins "had the distinguished honour of being unanimously elected," under such circumstances, is only a strong proof of the corrupt system of election, and the family interest to which we alluded. There were many eligible candidates as well as himself, who not only had been assistant physicians to the hospital, but stood as high as obstetricians as he did; for example, Dr. Johnson, the Professor of Midwifery at the Royal College of Surgeons, Dr. Breen, Dr. McKever, &c., &c., the seniors of the candidate elect; but they were not connected with Dr. Clarke, or the other medical officers, and therefore stood no chance against his son-in-law. Each of them had published some valuable report from the hospital, or some papers in the medical

press of Dublin, and every one of them was in extensive practice. In making this statement, we intend no personal disrespect to Dr. Collins; but it is necessary to advance it against his defence of the purity of election of the master to the institution above mentioned. It also proves a part of our original assertion, "that masters were appointed who did not possess the slightest claim to preferment, while the most competent have been repeatedly, or rather invariably, excluded—witness the exclusion of Dr. Montgomery and others."

With respect to the eminent physician just named, it is said "he never was a candidate for the office of master, *nor could he*, as he has not been assistant to the hospital." Here is another proof of gross jobbing. Dr. Montgomery is Professor of Midwifery in the Medical School of the Dublin University and College of Physicians, Physician to a Lying-in Hospital, an elegant scholar, a learned, eloquent, and experienced professor, a popular lecturer, a most judicious obstetrician, but he could not be candidate for the office of master to the National Lying-in Hospital, as he has not been assistant to it; which means, that he had not paid £250 or £300 for the latter appointment; and even if he had, he would probably want that family interest, and that long established friendly feeling which exists between the three medical governors, whose names were already mentioned, and lose his election as others had before him.

In shewing the evils of the mode of election of masters at the Dublin hospital in question, we gave one, among other examples, "that incompetent persons get appointed, and up to this hour none of them was ever able to publish even so imperfect a volume as the present." To this Dr. Collins replies by adducing the following extract. "This report of obstetric practice is the most valuable in the medical annals of

this or any other country." (*Ryan's Midwifery*, p. 225; on Dr. Clarke's Hospital Report).

Does our opponent in argument seriously mean to urge, as a satisfactory answer, that a single report in one of the periodicals is a refutation of our allegation, that none of the masters was able to publish even so imperfect a volume as Dr. Collins'? We really never knew before, that an isolated report, and a "Practical Treatise on Midwifery, containing the result of *sixteen thousand, six hundred, and fifty-four births* occurring in the Dublin Lying in-Hospital," were works of equal importance—or that one was to be considered a book at all.

Dr. C. proceeds: "As to the incompetence of my predecessors in office, it is sufficient to mention Drs. Clarke, Ivory, Labatt, and Pentland, to place *this* on an equality with the errors before noticed." Now, we beg to inquire what original treatise, or what benefit, have the annals of science derived from any one of the above physicians, with the exception of Dr. Clarke's very few reports? But we never said they were incompetent, except as monographic or systematic authors; and this we fearlessly repeat.

We call on our correspondent for the names of their works, and until these are furnished, our position is incontrovertible. These physicians attained to great eminence as obstetricians in private practice, after the termination of their respective masterships; but that has nothing to do with the question at issue. Dr. Collins asserts that our remarks on the hospital were unconnected with a review of a work, whose contents were derived from the institution. We cannot assent to his assertion. In the first place, he brought the establishment most prominently before the reviewer in his title page, and several times in the work. Again, the hospital is public and not private property, and every physician in Dublin ought, in

justice, to have as good a right to the advantages which it affords in private practice—and these are numerous—as any one of the former or future masters, who was or may be connected with it. In fine, it being one of the largest in Europe, its masters ought to contribute as largely as those of much smaller institutions to the advancement of science. Dr. Collins is in error in stating that the reviewer "maligned the character of an institution, and its principal officers," for the character of the former was never mentioned, and that of the latter was given with perfect accuracy and truth. It was merely urged, that the principal officers of the institution had not published works even equal to that which gave rise to these observations; and that is a fact which cannot be denied.

It is however the system of election for seven years, and the mode of election, that has in some measure disqualified former masters from following the example of Dr. Collins. At the end of seven years the master retires, just when his observations and experience ought to be rendered valuable to the poor, and beneficial, in his capacity of lecturer, to the advancement of obstetrics. He then acquires extensive private practice, and the scientific world loses all sight of him. He is in great repute with midwives, the female part of society, and the ignorant part of the profession, though he has not gained any reputation for talent, industry, or usefulness among scientific practitioners, unless, like our opponent, he places his opinions among the records of medicine. Were it not invidious, we might mention the names of masters of that Dublin hospital, which are wholly unknown to the profession, except in Ireland. Notwithstanding the defence of our correspondent, the profession in Dublin have long entertained the opinions we have expressed of the establishment to which they referred; as a proof of this we may mention, that

other lying-in hospitals have been opened of late years in Dublin, although the national one is fully adequate to the wants of the population of that city. The national institution is virtually closed against all who have not private and family interest, or who cannot purchase some of its appointments. There are many physicians in Dublin, who could give an ample history of the monopoly in this institution; and we hope to be favoured with such account.

We request some of them to favour us with the particulars of a few of the elections; the number of voters at each, the politics and religious persuasion of the candidates, and all other interesting information. Perhaps our correspondent, who thinks the election so fair and "such a distinguished honour," would transmit to us the above information—and no one could do it better; and also who were the other candidates, when he was unanimously elected. The concluding part of Dr. Collins' letter requires but very few remarks. He has not complained of the reviewer, further than about a table as to the frequency of the use of instruments, which was accurately copied from his work, and which was headed as given in it. If this required to be elucidated, by reference to another in back of the text, the fault was not the reviewer's but the author's, as no reference was made to any other.

With regard to noticing other parts of Dr. Collins' work, we may probably do so on some future occasion, when convenience may permit; but the author ought to know, that weekly journalists have very little space for elaborate and lengthy reviews, which are only suited to the pages of quarterly journals.

We might dilate upon the preceding theme, if we were disposed to be severe critics, but we have adduced sufficient evidence to prove beyond the possibility of doubt, that the election at the Lying-in Hospital of Ireland for chief Physicians is injurious to the poor, and to the

interest of several, while it is most unjust towards the members of the medical profession.

—o—

PROFESSOR OF SURGERY IN THE UNIVERSITY OF EDINBURGH.

WE are much indebted to our correspondent SCOTUS for his information relative to the late election of Professor of Surgery in the University of Edinburgh, which will be found in another of our pages. It is lamentable to observe the conduct of some of our contemporaries with regard to the candidates. The reason will be obvious after the perusal of the communications to which we refer.

—o—

SURGEONSHIP TO THE RICHMOND HOSPITAL, DUBLIN.

THE government appointment of Mr. Adams, the Assistant Surgeon to the Richmond Hospital, as surgeon, was judicious and just. There can be no reasonable ground of complaint on this occasion, while public charities are conducted on the present plan, as a gentleman who has acted for many years as assistant surgeon to an hospital, more especially when he is eminently qualified, has a strong claim to the next appointment. Mr. Adams is a distinguished anatomist and surgeon, a popular lecturer, and one who has published many valuable surgical essays in the Dublin periodicals. He was recommended to the government in preference to all other candidates, by Mr. Crampton, Mr. Carmichael, and Mr. Colles, the most eminent surgeons in the Irish Metropolis, and each belonging to different hospitals. The appointment reflects honour on the Irish executive for doing justice to a gentleman of opposite politics, and also on those who recommended him, and whose personal interests were naturally very different. We are glad to perceive the dawns of a better spirit among the medical profession in Ireland; and we trust that in future, the religious and

political opinions of an able and talented individual will no longer depreciate his merit, or impede him in his professional career.

—o—

MEDICAL ATTENDANCE ON THE SICK POOR.

To the Editor of the London Medical and Surgical Journal.

SIR—My attention having been for some time past, intensely drawn towards the subject of medical attendance on the sick poor, I have read with much interest, and not a little disappointment, the communications of your correspondents and your own editorial remarks thereon. My disappointment has arisen in consequence of my having found the subject treated (as it appears to me) partially, and by no means in that comprehensive manner which its importance, and the various and *seemingly* conflicting interests of the parties concerned, demand. I say *seemingly*, because I hope to be able to shew that they are not *really* conflicting. With these impressions, I am induced to offer some observations, as the result of my experience, which I hope may assist in throwing some light on the matter and afford some data for deciding upon the *proper* remedy for the evil justly complained of. But I may here remark, *in limine*, that it will be perfectly useless to point out either the evils or the remedy, while the profession continues such a rope of sand as circumstances and the chicanery of its ruling corporations have made it. *Union* has done much, and will do more, in politics, and unless the present state of affairs should excite an *esprit du corps*, in which our body appears to have been from time immemorial most lamentably deficient, the exposé now in progress will only put *new* weapons into the hands of those who profit by our disunion, and by enabling them still further to effect division among us, will put us at last completely in their power.

While deeply sharing in the indignation expressed in Mr. Verral's communications, I perfectly coincide in the opinion so forcibly urged by yourself, namely, that the members of the profession have none but themselves to thank for what has happened. Angry they may be, but ought they to be surprised if, having eagerly and with all the virulence and malice of party medical politics engendered by contested elections for parishes and other *charitable(?)* institutions, contended for the *honour* of the appointments, those who elect do estimate them at their own valuation, and taking advantage of the competition in the labour-market, do enforce the maxim, "*divide et impera*," most inexorably against them? And here I would remark that Mr. V. is scarcely just towards his junior brethren, when he accuses

them of undervaluing their time and talents so greatly, for the purpose of superseding their seniors in these offices, inasmuch as Mr. V. acknowledges to having been himself underpaid as well as his contemporaries; consequently the presumption is fair, that both he and they have heretofore been guilty of the same offence. "They who have glass windows, should not throw stones."

Again, Mr. V. in his too evident anxiety to inculcate those who now seek these appointments, and to exculpate those who already possess them, attributes motives inconsistent with his own statements and at variance with the facts; and Mr. Bottomley indignantly repudiates the charge of being influenced by the *indirect* advantages afforded by these offices, rather than by the amount of the salary; at the same time admitting that the latter "is not at all adequate to the very great charge and heavy responsibility attached to them." Now, sir, with respect to parish appointments, I am prepared to maintain that in *no* case is the salary in the remotest degree adequate to the duties which are *contracted to be performed*; that where the surgeon has to supply medicines, surgical instruments, &c., which is the case in almost *all* country parishes, the salary cannot by any possibility assist in maintaining a family, inasmuch as it is insufficient to defray the cost price of drugs alone; aye, even if salts and water, and quassia chips, with second editions of the vegetable infusions, &c., were all that the diseases of poverty required. No, sir, it is worse than useless, it is foolish and mischievous to blink the fact, that it is the *indirect* advantages obtained through the medium of these appointments, which cause them to be so eagerly sought for; it is the patronage, the introduction to *better* practice, the suspended orders, the midwifery fees, the inquest fees, &c. &c., the monopoly of which is secured to the successful candidate: and this is one of the causes in operation in producing "envy, malice, and all uncharitableness" among the profession. In proof of my assertion I need only point to the fact, that appointments to hospitals, dispensaries, and other similar institutions to which *no* salary is attached, are not less the subjects of eager and unprincipled contention among medical practitioners. I say *unprincipled*, because I *know* that in the degrading practice of canvassing for these offices, all manner of electioneering tricks are resorted to to obtain the start of the rival candidate, to depreciate his abilities, and to bring *all* kinds and degrees of *influence* to bear upon the electors. Until the profession learns to respect itself, it will look in vain to be respected by the world. I have omitted to mention above, another advantage which a monopoly of these appointments gives to the individuals possessing them, namely, the facility of obtaining pupils with large premiums, to whose inexperience the practitioner too fre-

quently entrusts the task of discriminating between strangulated hernia and cholic, between Epsom salts and oxalic acid, in reference to his pauper patients, while his own time and *experience* are so much better employed in pocketing the fees and flattering the vanity of some purse-proud and gouty Parvenu or hereditary, hypochondriac aristocrat. The injury both to the "morale" as well as to the "physique" of the profession, of which we are only now beginning to be sensible, the neglect of the poor, of which some strong case is occasionally brought to light, but the ten-thousandth part of the *systematic* extent of which is never publicly known, as well as the ultimate cost to the public, but to which no allusion has hitherto been made, are all, more or less, to be traced to the before-mentioned monopoly.

It is evident, by Mr. V.'s own showing, that the guardians acting under the New Poor Law Act, have generally taken existing contracts for their guide; and although the cases cited by him are bad enough, I have no doubt that others might be found in which the medical officers, if they are not actually gainers, are at all events less of losers by the change.

Having extended my observations as far as I can, with any reasonable hope of their insertion in your excellent periodical, which I have taken ever since it assumed its hebdomadal form, I shall now conclude. In my next, I shall be prepared to enter more into detail, and shall most probably take that opportunity of indulging in a little jocularly at your expense, on the subject of the "maggot" in your head respecting "experience."

In the mean time, wishing you success in your efforts to effect a radical reform in our medical institutions,

I remain, very respectfully, your's,

ISAAC AARON, M.R.C.S.

Birmingham, Dec. 22, 1835.

—o—

PROFESSORSHIP OF SURGERY IN THE UNIVERSITY OF EDINBURGH—MALIGNITY OF THE MEDICAL GAZETTE.

To the Editor of the London Medical and Surgical Journal.

SIR—The independent and liberal manner in which you have always conducted your valuable journal, convinces me that the appeal I am about to make to your justice will be attended to. I am the more induced to make such an appeal, from the fact of your having, in your leader of last week, spoken so favourably of the appointment of Sir C. Bell to the Chair of Surgery in the University of Edinburgh. No one is more willing or more anxious to give that truly great physiologist and surgeon all the honour his merits will entitle him to, than myself. But, sir, there is another question involved in

this appointment; a question which, as it has been taken up not only by the medical, but the public press, should not be passed by lightly. It is that question, sir, which regards Mr. Liston as a candidate for the office to which Sir C. Bell is appointed; and the only fact in dispute is this—Could Mr. Liston have obtained the appointment, had he wished to do so, or could he not? Now, sir, the case stands thus—the *Courier* newspaper (London) states that Mr. Liston never did intend to accept of such appointment; and that when a proposition was made to him, by a highly respectable portion of the influential members of the town-council, to stand as a candidate, that he positively stated that he would "not leave London for any situation that could be offered him." This is fact, or falsehood. The editor of the *Courier* states, that he has seen documents which will prove it fact. You also state in your journal, nearly in the same words as those used in the *Courier*, the decision Mr. Liston had come to. I consider, then, that you also must have seen such documents, or you would not so positively state the circumstance. This is one side of the question; the other side rests mainly on the speech of the Lord Provost at the nomination of Sir C. Bell; in which the worthy magistrate states—that when the appointment was offered to Mr. Liston, he did not know there was any other individual between that gentleman and the chair. Now, did the Lord Provost know of Mr. Liston's having declined the honour of being elected? this is an important point—for on it the whole matter hinges; and one question put to the worthy magistrate, if answered, will put the matter to rest. Did he (the Lord Provost) fear, that, if it was generally known that Mr. Liston had refused the appointment, that Sir C. Bell would not have accepted it after such refusal? There is something more, sir, which requires mentioning regarding this dispute. The *Medical Gazette* has spoken of the article in the *Courier* as having been written by an indiscreet friend of Mr. Liston's; but, sir, did not the editor of the *Medical Gazette* strangely overlook, or wilfully mistake facts: he must have been strangely ignorant, indeed, on this matter, if he did not know that the article in the *Courier* was an answer to one which appeared in the *Scotsman* on the subject; and in which paper (or report contained in it) the dispute was foolishly begun by the friends of Sir C. Bell. But, sir, there appears to me to be a more indiscreet enemy to Mr. Liston, in the editor of the *Medical Gazette*, than an indiscreet friend to him in the *Courier*. I must confess I cannot see the indiscretion of defending the reputation of a gentleman, when that reputation is unjustly assailed. Perhaps the editor of the *Medical Gazette* is of a different opinion; he is certainly fond of wrangling—like Orlando, he is never happy if not tilting; or perhaps we might more justly

compare him to Don Quixote, so dreamy and so muzzy, and yet so "indiscreetly" valiant withal! The editor of the *Medical Gazette* states that Mr. Liston never could have obtained the appointment to the professorship; and makes such statement, too, knowing of the article in the *Courier*—thereby giving that journal the lie, and, of course, yours also. *His* lies are, however, so palpable, that he will never be suspected of having written a farce that was performed with success some years ago at the English Opera House, entitled, "He lies like Truth." With regard to the anonymous letters said to have been circulated in Edinburgh, disparaging to Sir C. Bell, and the effects of which were counteracted by the distribution of extracts from the *Medical Gazette*, I have only to say, that it was an excellent scheme of the worthy editor's, by which he might advertise his journal—

"We made the giants first, and then
We slew them."

Now, sir, I appeal to your justice for the insertion of this letter. I do it the more readily from this fact, that you have always given Sir C. Bell the honour that is justly due to him—that in your late *leader* you spoke of his appointment with great satisfaction; therefore, neither you or myself can be suspected of wishing to detract from the merits of that truly great man, but that our object is truth.

Yours, truly,

Edinburgh, Dec. 24.

SCOTUS.

—o—

THE CHAIR OF SURGERY IN EDINBURGH.

To the Editor of the London Medical and Surgical Journal.

SIR—As an addendum to my last, perhaps you will be good enough to insert this note. Your worthy contemporary, the *Medical Gazette*, in the last Number, has given what he calls "a last word touching the Chair of Surgery in Edinburgh." The veracious Journalist, finding he had got in the wrong box, and that his bullying and blustering were properly appreciated, tries to sneak out of the matter, as one might expect such a person would. Sterne used to say, that when he "could not fight with the *devil*, he used to run away from him." But, he of the *Gazette* has tried the battle, and, having got well drubbed, sneaks off, firing a shot, as harmless as his shots generally are. He says, "We conjectured that some unauthorized individual had asked Mr. Liston to become a candidate, and he, knowing how matters stood, very wisely said he would not. It now appears that Mr. Dick was the individual. *This is the whole of the matter.*"

Now, as it happens this is not "the whole of the matter," but it is that part of it which

might serve Master Greenhorn's malicious wishes. The other part, which gives a rather different look to the matter, is simply this—Mr. Dick is the convener of the Town Council of Edinburgh, in whom the appointment to the surgical chair is chiefly vested. Let me ask the hireling scribe a question. Was it likely that the convener of the Town Council would write to Mr. Liston, offering him the appointment, if authority was not given for that purpose? Here then ends the matter, which stands pretty much thus: that the *Medical Gazette* has eaten its own words; the best proof of this is a reference to the three last numbers of that veritable organ of monopoly; the malignity displayed in the articles regarding Mr. Liston is so glaring, that it deserves only to be mentioned that it may be despised. I need not state that Mr. Liston is lecturer at St. George's; the *Gazette* man is in the opposition school—*Jam satis.* Yours, &c.

Edinburgh, Jan. 5, 1836.

SCOTUS.

—o—

HISTORY OF MEDICINE IN CHINA.

THE following is an account of the medical writers and doctrines, as they have existed and do now exist in this mysterious empire. It is the work of a writer in the "Indo-Chinese Gleaner," a periodical that appeared at various dates in the years 1817 and 1822 inclusive, and conducted by the indefatigable missionaries in that quarter of the globe; and among others by the celebrated Dr. Morrison. The work is exceedingly rare in this country, and this joined to the curious nature of the subject, renders all excuse for extracting the article unnecessary.

"We feel particularly happy in giving publicity to this paper, for two reasons: the first is, that the subject of Chinese medicine has not, that we are aware of, been laid before the British public. The second is, that the paper appears to have been read before a select number of gentlemen in China, who have, it would seem, formed themselves into a Society for the purpose of investigating the natural history, &c. of that country, and from whose united researches, much new information may be expected. We cordially wish them success. We shall rejoice in their every step in the path of science. We shall have great pride in giving publicity to any documents they may wish to be generally known; and it may be satisfactory to our medical readers to know, that we have reason to expect a series of papers on the subject of this one, which we shall, by the earliest opportunity, lay before them."

"Gentlemen, the Chinese, whom I venture to pronounce the most unique, and the most original people at this day on the face of the earth, look at medicine in two points

of view, a favourable one, and an unfavourable.

"1. The sincere, diligent, candid, and benevolent practitioner, who toils for the health of his neighbours, and fellow-countrymen, they regard as holding a place equal in importance to that of the virtuous minister of a powerful monarch, who is a blessing to the empire. On the other hand, he who has no higher motive than his own emolument, and who from his ignorance, or his fool-hardiness, as often kills as he cures, they regard with sovereign contempt, and feel ashamed that such men should be called by the same name as the sincere votaries of the healing art, who by a very appropriate and honourable distinction, they call *jìnshùh*, 'the benevolent art.' The ideas I have thus put into English, are taken from the preface of a work in forty volumes, compiled by the united efforts of about a hundred persons, connected with the Imperial College of Physicians at Peking, during the reign of the late decided and prosperous monarch, known by the name or rather title of *keen-lung*, which, being interpreted means, 'celestial glory.' This book, which is the latest national work in China, on the subject to which this paper has a reference, was published about A.D. 1740.

"2. There is an individual and private work, in eleven volumes, printed not more than fourteen years ago, entitled *E-shoo-hwuy-tsan*, 'a comparative compendium of Medical Books:' this is the latest publication which has any pretensions to particular notice, that I have seen. In the year 1819, being desirous of procuring information on the Chinese notions of diseases and their cure, I bought all the books on medicine which were to be found in the populous and opulent city of Canton. They amounted to 892 volumes. I need scarcely add, as my other avocations are well known to you, that I have not yet been able to examine the contents of these books, to that extent which I could have wished; or rather, did and still do wish to effect.

"3. I shall this day furnish you with a few general notices on the history of Chinese medical practice; and at the same time would observe, that I by no means anticipate very important and useful discoveries from the Chinese in this department of human knowledge; for, since the genius of Bacon threw open the gate of experimental science, the European mind has outstripped all that ever preceded it, in the accuracy and the extent of its knowledge. However, you are not unacquainted with my maxim, which with reverence I adopt from an inspired and a divine author, viz. that 'it is more blessed to give than to receive.' I know it is a much more ungracious task to teach than to learn; for the assumption of superior knowledge, however justly it may be claimed, commonly offends one's pride; whereas, he who becomes a scholar flatters

our vanity: this is a difficulty in our way; but, I would ask what honourable and benevolent course is not attended with difficulties? Let us therefore resolve to go onward.

"4. In the case of men so remotely situated, and of such a different speech, and discordant manners, and habits of thinking, as Englishmen and Chinese, a most discouraging difficulty *in limine* is, how to understand each other on physical and medical facts and theories; therefore, as I have before hinted to this Society, great patience is necessary in our pursuits; and one must learn a great deal of nonsense, in order to be able to refute it.

"5. The imperial work above referred to, is entitled *E-tsung-kin-keen*, 'a Golden Mirror of the most approved Medical Practice.' All books in China referring to medicine that could be procured by purchase, or by loan, were collected, and traditional popular MSS. were sought by the order of government. In four years it was completed. In this work it is maintained, that in the remote ages of antiquity, medicine, and the affinities and correspondencies in nature, were better understood than at any subsequent period.

"Chinese writers attribute the ascertainment of the properties of herbs to *Yen-te*, the illustrious monarch, an antediluvian personage, in their annals placed about 3000 years before our era. This illustrious King *Yen-te*, is otherwise called *Shin-nung*, which appellation means, 'Divine Husbandman.' About the same time lived; another king, *Heen-yuen*, and a statesman, named *Ke-pih*, who, with the monarch just now named, formed by their personal efforts a sort of Royal Society, for physical and medical research in China; and in allusion to them, medicine is sometimes called 'the art of *Ke-heen*.' To *Ke-pih*, the origin of *Tszechich*, i. e. 'impuncture,' is attributed. There are two fragments, yet extant, attributed to *Ke-pih*, and which, (according to the imperial editors, and other writers) are the most ancient notices in China, concerning the cause and cure of diseases.

"6. The first of these fragments is called *Lingchoo*, 'the intellectual hinge,' perhaps meaning, that turning point, that crisis, which determines the connexion, or the final separation of soul and body. The other fragment is entitled *Soo-wan*, 'plain questions,' and refers to, or contains the result of certain consultations between *Heen-yuen* and *Ke-pih*, on *splanchnology*.

"7. Both these medical fragments are given in the work published fourteen years ago, by a private hand, to which I referred in the beginning of this paper. They are considered more ancient than the classical books, collected and edited by Confucius; but how their authenticity and genuineness are traced I know not. The style of these, like that of several other ancient medical

writings, is obscure, and abstruse to modern Chinese students. In these fragments, the circulation of the blood is recognized; whether in the form of a note or not, I am not prepared to say: however, there is little doubt, that as early as the days of Galen, the Chinese believed, and taught, and acted on the belief, that the blood, and a certain animal spirit, or subtile aura, circulated, or went round and round the human body, without intermission day or night, as long as life continued. But, up to the present time, I believe, they are ignorant of the manner in which it does perform its circuit, and of the structure of those canals, the veins and arteries, which convey it.

(To be continued.)

—o—

MEDICAL BOTANY.

PLATE XII.—STYRAX OFFICINALE.

Off.—The balsam, called Storax.

This tree grows in the Levant, Italy, and France. The storax flows from wounds made in the bark, in countries where the heat is sufficient; for neither in France nor in Italy does it furnish any. Storax occurs in three forms. The best kind, *St. in granis*, is in grains, either distinct or slightly agglutinated, of a yellowish or reddish-yellow colour, about the size of a pea, as soft as wax, tough, and having the smell of the finest vanilla. It is probably the product of spontaneous exudation, and is not now to be procured. The second kind is in masses (*St. in massis*), of a clear brown or reddish colour, less translucent, resinous, pieces agglutinated by a clammy substance. This is also rare, and now occurs in bladders. Formerly it was sent packed in the leaves of a reed, and hence called *Styrax calamita* or *canaliculata*. It likewise has an agreeable smell like balsam of Peru, an aromatic balsamic taste, and is inflammable. The third kind, which almost alone occurs in commerce, and is sold as *St. calamita*, is common storax, *St. vulgaris*, *Scobs styracis*. It is totally different from the preceding. It consists of large, light, compressed, clear brown, round or shapeless masses, which externally are not unlike peat turf, easily friable. It is evidently a compound of sawdust and other foreign substances with genuine storax, or is the residuum of black Peruvian balsam after decoction. When good, it should, by pressure between two hot plates, yield a fluid brown resin, smelling like storax.

Storax has an agreeable smell and an aromatic taste. Neumann got from 480 grains, 360 alcoholic, and 30 of watery extract; and inversely, 120 watery, and 240 alcoholic. In distillation it yielded benzoic acid. It is therefore a balsam, or natural combination of resin with benzoic acid.

Medical Use.—It is employed for perfuming wax lights, or for fumigations.

Leeches.

M. Noble, head physician to the hospital at Versailles, has invented a successful plan for breeding leeches in a reservoir made for the purpose. A quantity of potters' clay is put into the vessel, in which they deposit their cocoons, and in which they shelter themselves from cold and storms.

—o—

BOOKS.

The Medico-Chirurgical Review. Edited by James Johnson, M.D., Physician Extraordinary to the King, and Henry James Johnson. Lecturer on Anatomy at the Kinneton Street Theatre, adjoining Saint George's Hospital. Jan. 1836.

The British and Foreign Medical Review, or Quarterly Journal of Practical Medicine and Surgery. Edited by John Forbes, M.D., F.R.S., and John Conolly, M.D., Editors of the Cyclopædia of Practical Medicine. Jan. 1836.

The Edinburgh Medical and Surgical Journal. The last four numbers have not reached us in exchange.

The American Journal of the Medical Science is most irregularly received.

A Practical Treatise on Urethritis and Syphilis; including Observations on the power of Menstruous Fluid, and of the Discharge from Leucorrhœa and Sores, to produce Urethritis; with a variety of Examples, Experiments, Remedies, and Cures. With a New Nosological Classification of the various Venereal Eruptions. By William Henry Judd, M. R. C. S. L. 8vo. pp. 568. Numerous coloured Plates. London. 1836.

Guy's Hospital Reports, No. 1, January 1836. Edited by George Barlow, M. A. Trinity College, Cambridge; and James P. Babington, M. A., Trinity College, Cambridge, M. R. C. S.

Encyclographie des Sciences Médicales Repertoire General de ces Sciences, an xix siècle. Dictionnaire de Médecine et de Chirurgie Pratiques. Dictionnaire de Médecine. Seconde Edition. tom. x. London.

A Brief Memoir of Sir William Blizard, Knt., F.R.S. L. and E.; Surgeon and Vice-President of the London Hospital; read before the Hunterian Society, October 7, 1835. With additional particulars of his Life and Writings. By William Cook, M. R. C. S., Secretary to the Hunterian Society; Editor of an Abridgment of Morgagni, &c. 8vo. pp. 68. London.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

THE

London Medical and Surgical Journal.

No. 207.

SATURDAY, JANUARY 16, 1836.

VOL. VIII.

ESSAY

UPON SOME POINTS OF THE HISTORY OF CATARACT;

*Thesis presented to, and sustained before, the
Academy of Medicine of Paris.*

By THEODORE MAUNOIR,
OF GENEVA,

*Doctor of Surgery; Member of the Medical
Observation Society.*

TRANSLATED

By ALEXANDER THOMSON, M.B.
Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes Qui sommes nous pour nous détourner de cette voie."—BICHAT, *Œuvres Chirurg. de Desault*.

2. Commencement and Progress of the Disease.

THE commencement of cataract may be slow or rapid, occur in both eyes simultaneously, or in a single eye, be sensible to the patients, or altogether unperceived, &c. &c. Let us study these different points of view.

In the greater number of cases cataract commences slowly; the patients perceive that their sight declines, they see objects through a slight mist, and most frequently perceive that this disturbance of the vision is owing to the weakness of a single eye, while the other is still perfectly healthy; that is what has occurred in 52 of 60 patients; in the other 8, to whom 2 must be added, who were operated on in 1830, and indicated the facts without its being demanded of them, the commencement occurred in a more or less abrupt manner. The first was a man of 57 years of age, writer in an office; he went to bed one night after his usual labour, without having remarked the least weakening of his sight; the next day, on awakening, he could scarcely see sufficiently with it to find his way: both eyes were equally affected.

The second was a military man of 42 years of age, who, when marching from Valence to Paris, had his sight very good; in the space of one night, and without any known cause, it became very indistinct.

A third, a field labourer, aged 62, perceived one morning that he saw the objects as it were surrounded by a mist; he was certain that the day before he had nothing similar. Both eyes were equally weakened; however, it was only two years afterwards that he ceased to be able to conduct himself alone.

The fourth, whom I have elsewhere mentioned, was a coach guard, who, at the age of 65, lost the sight of his left eye in the space of some days, after having gazed intently at the sun.

A fifth was a soldier, aged 59 years: his case was similar to the third.

The sixth presents a case rather curious. A journeyman, aged 47 years, one day, in the streets, perceived, for the first time, that his sight was doubled; he shut his eyes alternately, and discovered that the right eye was completely lost; the left was very good. Three years later, while he was occupied in reading a journal, his second eye, which had in no way declined, became all at once so weakened that he was unable to finish his reading. Five or six weeks afterwards he could no longer see his way.

The seventh was a French captain of the empire, aged 62 years. One morning he felt intense itching in one eye, which lasted almost incessantly for three days, and obliged him to rub it forcibly. At the end of the third day the sight of this eye was gone: the other eye declined five years later, and was lost in two months.

The eighth was a gate-keeper, 50 years of age. One of his eyes had been slowly affected with cataract for about four years back, but the other was so good he was in no way uneasy about it. One Sunday, after a walk, he went to bed as well as usually; the next morning he could no longer distinguish more than light from darkness, and the contour of large bodies, but without being able to guide himself.

Of 26 women, forming part of these 62 patients, two only have presented analogous particulars.

In one, aged 35 years, the first eye became slowly affected with cataract; two years afterwards the other declined rapidly, but the patient could guide herself for four or five months afterwards. In the other,

who was a sempstress, aged 28, the first eye was likewise slowly lost. About three years afterwards this woman, after having, according to her custom, sewn all day long, perceived that her sight declined rapidly in the evening; the next morning she no longer saw sufficiently with it for sewing: three or four days afterwards she could no longer recognize her relations, and at the end of a week she could not see her way.

It is worthy of remark—

1st. That in these ten cases two only relate to women, although the number of these be not very inferior to that of men.

2nd. That of these ten patients two only had exceeded 62 years, four were between 50 and 60, and four under 50.

3rd. In three cases the commencement has occurred in a rapid manner in both eyes at once; six times, on the contrary, only one eye has been lost rapidly; in the seventh patient the commencement has been equally abrupt in both eyes, but at three years' interval.

4th. Finally, this kind of commencement has not appeared to have any unfavourable influence upon the definite result of the operation; indeed, of fourteen cases operated on, nine have been with complete success.

Cataract generally commences by affecting one eye: this has occurred in 63 patients out of 72. The right eye has been the first attacked in 35 cases, the left in 28. In nine cases, on the contrary, both eyes became weakened at the same time. Finally, it sometimes happens that persons affected with cataract have not perceived the loss of the first eye until, on accidentally closing the other, they discovered the more or less complete loss of the faculty of seeing. This mode of commencement is not even very rare: it has occurred in the ninth part of the cases in 72 patients. It is a thing at once worthy of remark, and difficult to comprehend, that some individuals will immediately perceive a trouble in the vision, from the fact alone of one of their eyes commencing to be weakened, while others do not even suspect that on one side their sight is completely lost.

There is a point, the discussion of which naturally finds its place here. Can cataract frequently remain limited to one eye during many years, and even during the whole life? or when its existence is on one side, is there a greater chance that the second eye will be more or less rapidly affected by the same disease?

The solution of this question, which at first seems only curious, may however become of the highest practical interest. Indeed, were it demonstrated that, in certain cases, the prevention of a second cataract could be accomplished, or a spontaneous cure could be obtained when it is commencing, by the fact alone of having operated upon the first eye affected, it is con-

ceivable that it would be very important not to observe the rule generally given, of not undertaking the operation until both eyes be affected with cataract. I know that this spontaneous cure of cataract is doubted by most surgeons; but it must be said that they very rarely find themselves in favourable circumstances for verifying the fact, since there are few who consent to operate on one eye before the second be affected. Opinion is not, however, unanimous upon this point; thus Wenzel has seen a person already aged, who, operated on successfully for one cataract in the right eye, would not have himself operated on for the other. Twenty years after he met with this same person, and was astonished to learn that he distinguished equally well with the left eye. This person related to him that the faculty of seeing had returned *progressively* to this eye without the employment of any means. He observed, however, that the left pupil was a little yellowish and opaque at its superior part. The same author asserts that he has moreover seen similar facts. Saint Yves mentions the case of a man wounded in the right eye; a short time afterwards this eye was affected with cataract, and the left eye soon shared the same fate, but the sight was re-established spontaneously when the right eye had been operated on. Finally, an English author of our days, Mr. John Bowen, in a small work, in which he proposes a new method of operating, declares positively that a diseased crystalline cannot be too soon operated on; "since," says he, "cataract of the second eye may be prevented by operating early on the first." He mentions, in support of his opinion, the example of a monk, on whom he operated at Rome, on the right eye, for cataract of six or seven years' duration; the opacity commenced in the left eye; it disappeared entirely after this operation, which was perfectly successful. The same author also relates a passage of Wardrop, which seems to him to confirm his views. "There is," says this last, "a disease of the eyes frequent among horses; it has the appearance of a specific inflammation—it attacks first one eye, then soon afterwards affects the other, and sooner or later destroys vision. Some veterinary surgeons know that if the eye which is the first affected come to suppurate, and to be destroyed in its orbit, the disease does not at all attack the other eye, or that it is arrested if it has already been declared therein; consequently, they have adopted the method of destroying at once the diseased eye, in order to save the other. They accomplish this object by piercing it with a nail, or by introducing quicklime between the eyelids."

I have not myself seen anything relative to the subject of which I am speaking; what I have just reported, I have done so in order to shew that it is *possible* that one day it may be important to know what chances there

are of having two cataracts, when one has already formed. I shall recur to this last question.

The answer generally made to it is the following:—When one eye is affected with cataract, the second eye is *most frequently* affected with the same disease. I am far from denying the fact; but I maintain that it is not so easy to establish as may at first be thought. Indeed, it may very well be objected, that if so many double cataracts are seen in the hospitals, and even in persons of the higher classes, it is so because in the greater number of cases the individuals who preserve one eye healthy do not seek the succour of surgery; and what would seem to favour that opinion is, that those even who have two cataracts, frequently do not apply for advice until their sight is weakened so as to hinder them from following their usual occupations—that is to say, that very frequently they have kept a cataract on one side for a longer or shorter time, without thinking of having it removed. Why should it not be the same, it may be said, with a great number of individuals who remain all their lives affected with cataract of one eye?

I am about to state what I have observed upon this subject, and what are the reasons which, according to my opinion at least, may lead to the belief that the general opinion is indeed the expression of the truth. Of 69 subjects who were received at La Charité during the autumn of 1832 and the spring of 1833, in order to undergo the operation for cataract, *one only* was affected with this disease on one side. It had existed for at least thirty years, and he had only thought of coming to seek advice because some slight spots had for a year back been developed upon the other eye, and slightly troubled his vision. Of 52 other patients who were operated on in 1830, ten were only affected on one side; unfortunately, I have not, in the ten cases, indicated what was the state of the other eye. In a *single one*, it is said expressly that one of the eyes was perfectly healthy, but the other had been affected with cataract only for a year back. Something analogous existed probably in one, or perhaps two, other patients. I must state, however, that of this I have no certainty. Thus, then, in 121 subjects, there have been found but two who very certainly had but a single cataract; again, it was only in one of the two that this affection was of a very remote date.

But the objection made above, representing itself here, other means of determining what is in reality the relation of double to single cataracts must be sought for; or, if it be considered,—1st. That in 72 subjects in whom it has been possible to fix the commencement of cataracts, there are 9 in whom that commencement has occurred in both eyes at the same time.

2nd. That in 8 only of these 72 subjects

one of the eyes was already completely lost without the knowledge of the patients, when they perceived that the second eye was declining; and that, consequently, it will be only in these eight patients that it may be strictly supposed that the first cataract has existed *alone* during a very considerable time; a thing which is neither proved, nor even probable, from what follows:—

3rd. That in all the others the second cataract has commenced some weeks, some months, or at most from three to five years after the first; that in two only it has commenced ten and twenty years later.

4th. Finally, that for 47 individuals in whom it has been possible to determine with some precision the time elapsed from the commencement of the first cataract to the moment in which the patient was incapable of guiding himself, the whole of that time, as I shall state farther on, has only been of five years and one month. If, I say, all these circumstances be brought together, we shall be induced to conclude that a first cataract (or, if it be wished, the cause that has produced it), has appeared to have almost constantly an influence so approximate upon the state of the other eye, that it is little probable that a cataract will be met with *single* for many years together, since, when there are two, they have generally succeeded each other after a rather short time. Nevertheless, that this kind of round-about solution is far from being correct, I admit; an appeal from it must be made to direct observation. However this may be, one thing is worthy of observation, that there is a remarkable difference between cataracts, which nobody will deny very frequently attacks both eyes, and other diseases which seldom affect more than one organ. What more rare, for instance, than to find cancer attack both the breasts or testicles? And yet is not the similarity of organization and of functions as complete between the two breasts and testicles as between the two crystallines? Is not the exciting cause of cancer as deep-rooted in the organization, when once developed, as that of cataract?

Progress.—There remains little for me to add upon the progress of cataract; it has been constantly slow and uniform, except in some cases already mentioned, in which it has been as rapid as the commencement of the affection had been abrupt.

The patients generally perceived the mists surrounding them become thicker, little by little, and without sudden changes, until at length they could no longer guide themselves. Sometimes the disease, after having commenced slowly, has made rapid progress in a few days, or even in the space of a night. Thus, in the case of a man whose eyes began to be weak at 59 years of age, cataract had increased so slowly that after five or six years he still could guide his

self; then, without any apparent cause, and in the space of a night, the blindness became complete.

In the case of a woman, of whom I have already spoken, an erysipelas of the face appeared to very much accelerate the progress of the disease.

In a third, finally, the commencement and the progress of the two cataracts had been slow; she still saw well enough with one eye to undertake a journey alone, on foot, of five leagues, after which the cataract made such progress, that at the end of three days it was necessary to lead the patient to her home.

3. *Symptoms and Diagnosis.*—The symptoms of cataracts are well known; however, as some are not generally agreed upon, I shall examine them in detail. Besides those drawn from the inspection of the eye, others are found in the sensations experienced by the patients.

SECT. I.—Thus, a uniform mist, which incessantly becomes more dense, envelops every object, and terminates by hiding them completely from the sight, is constant in all individuals affected with cataract.

SECT. II.—But, in more than three-fourths of the cases, other sensations are joined with this. Thus, in 59 persons affected with cataract, 13 only had never perceived anything but that uniform mist; the other 46, on the contrary, had had very various illusions; they used to see coloured ribands, diamonds, flashes of lightning, flames, brilliant luminæ, brilliant rings, serpents appearing to crawl before them, sometimes at the commencement, in a transient manner, sometimes at a more advanced epoch, and sometimes during several years successively. But, of all these illusions or imaginations, as they have been called, by far the most common was the frequent, or even continual presence of one or several black flies, vaulting sometimes before one eye, sometimes before both. In 33 of the 46 subjects in question, that sensation existed alone, or united with some of those that have just been indicated. I have inquired whether they did not depend upon the spots, the various striæ that are seen, as I shall state hereafter, frequently marked enough upon the opaque bottom of the pupil; but that is an explanation which it has been absolutely necessary to renounce, as two-thirds of the subjects who had experienced these sensations had cataracts completely uniform in aspect.

It would be very useful to study carefully, in a great number of individuals attacked with blindness, all these visual sensations of which the cause is unknown; perhaps it would be the means of arriving at the best sign of recognizing the disease, when the examination of the eye is insufficient, and for removing all doubts. Indeed, opinions are far from being unanimous upon

the differential characters of amaurosis, for instance, and of cataract, in the difficult cases. Thus it is that professor Marjolin, in the article *Amaurosis* of the *Dict. de Médecine*, says, that vision being better laterally than in front, is a sign peculiar to cataract, since persons affected with amaurosis do not see better, in whatever position the object may be. On the contrary, Beer and Richter (quoted by S. Cooper) pretend that in amaurosis it frequently happens that the patient can still see in a determinate position. Richter goes further; according to him, as it is the centre of the eye that appears the most frequently affected in the *gutta serena*, it happens that the greatest number of patients, having a commencement of amaurosis, always see the objects better situated laterally than those placed in front.

SECT. III.—I cannot say what happens in amaurosis; I have not observed a sufficient number of them; but what is certain is, that in cataract it is by no means rare to meet with this symptom spoken of by Professor Marjolin, and which, moreover, is well known. It must not, however, be believed that it can very frequently be determined; many patients have not directed their attention to this, and can give no indications upon the point. Of 46 persons affected with cataract, 23 were in this state, of the other 23, 15 had very well remarked, that there had been a period at which they had distinguished lateral objects much better than those directly in front of them; 8, on the contrary, have affirmed that they have frequently tried every species of position without any success.

SECT. IV.—There is another kind of sensation stated by some authors to be peculiar to persons affected with commencing amaurosis; that is, seeing artificial light, and very much enlightened objects, as it were, surrounded by a rainbow aureola; it is likewise being affected with double vision (*diplopia*). I do not know what occurs in amaurosis, but at least those phenomena do not exclusively belong to this last affection: they are met with, though rarely, in cataracts. Thus, of 25 patients questioned on this point, 3 stated that artificial light appeared to them surrounded by rainbow colours; and assuredly none of them was amaurotic, for the extraction of the crystalline restored them to their sight, at least on one side. In almost all, the flame of a lamp appeared to be a very voluminous globe of fire.

SECT. V.—Nine of them experienced other sensations besides; some, in place of one light, used to see two or a greater number; others, round the principal light, which appeared to them very large, used to perceive a multitude of small flames, which seemed to proceed from it; in one of them, the flame of a lamp appeared to be multiplied 20 to 30 times, when he was remote

from it, but it again became single as soon as he approached it; finally, one man, when he looked stedfastly at the moon, thought that he saw several luminous globes, and an artificial light did not produce an analogous effect on him. It would be curious to try whether the same sensations exist in the amaurotics, and in what proportion they are met with.

SECT. VI.—It is known that the subjects affected with cataract present this peculiar phenomenon, at least, in the early periods of their disease: they see better in a rather obscure, than in a brightly illuminated place, before the rising and after the setting of the sun. This fact is very well explained by keeping in mind the changes that occur in the dimensions of the pupil. In persons affected with cataract, just the same as in individuals whose eyes are perfectly healthy, the pupil contracts when the eye is exposed to rather a vivid light; it dilates, on the contrary, in the opposite circumstances. Or, the thickness of the crystalline diminishing in a very rapid manner from the centre to the circumference, and the opacity in cataract being generally less at the periphery than at the centre of the lens, it is clear that the images of bodies must arrive much more readily to the bottom of the eye if the luminous rays fall upon the crystalline nearer to its circumference. But this phenomena of dilatation and contraction of the pupil, which are constant in the individuals affected with cataract, while it very well accounts for what they experience in passing from a vivid light into a place comparatively dark, seems to me to be a rather powerful objection against the species of intimate dependance generally admitted between the iris and the retina. Indeed, if it be true that in the normal state of the organ of vision, one of the functions of the iris be to contract the pupillary opening proportionally to the quantity of light received by the retina, in consequence of a sort of consensus between these two membranes, the first regulating constantly and solely its movements according to the wants and the impressions of the second, how happens it that in cataract, a disease which in no way changes the normal state of the retina and of the iris, which only interposes between them an opaque veil, how, I say, happens it that this sort of consensus, this species of intelligence of the iris is so perverted that the movements of that membrane are no longer regulated by the impressions received by the retina, but only according to the quantity of light that it receives, since it contracts in daylight, so as to annihilate altogether the faculty of vision? This objection seems to me to be so forcible, that until further elucidated, I should prefer admitting that in the normal state the iris can move not only under the dependance of the retina, but likewise under the direct influence of the light that strikes upon itself.

This mode of considering it accounts both for what passes in cataract and for what occurs in the natural state. I know it may be objected that in amaurosis the iris is most frequently immoveable, and seems, by this state of paralysis, to follow the state of paralysis of the retina; but the objection exists, I believe, more in the words than in the things. What proves that amaurosis is in all cases a paralysis, properly so called, of the retina, and even that the disease is seated in the retina? Absolutely nothing; it is declared that there is paralysis of the retina, because the transparency of all the media of the eye is seen to persist, while the sight is abolished. But why may not the cause of the disease have acted primitively upon the ophthalmic ganglion, and the branches of the fifth pair, as well as upon the other nervous parts of the apparatus of vision? Moreover, is not amaurosis very frequently seen as a symptom of a material appreciable lesion of a limited portion of the cerebrum or even of the cerebellum, without the least change being found either in the retina or in the optic nerve? How, in these cases, does the retina paralyse the iris, since it is very manifest that the cause of blindness exists in the nervous centres and not elsewhere?

Finally, there is no need of having observed a great number of amaurotic cases to know, that the sight may be totally annihilated while the iris preserves the integrity of its movements. I shall again remark, as proof of the possibility of the independence of the retina and of the iris, what occurs when extract of belladonna is applied upon the eye: the pupil dilates, remains immoveable; and if the dose of the topic has not been sufficiently considerable to procure drowsiness, the sensibility of the eye to light is by no means diminished by it; this is a palliative means, which has been recommended for rendering the sight momentarily more distinct, in the case of commencing cataract. I recur to the subject which has drawn me into this digression. If, in the greater portion of persons affected with cataract, the sight acts more distinctly in obscure places than in the broad daylight, particularly in the commencement of the disease, yet the thing does not always occur. Thus, of 55 subjects, 45 have declared, that from the commencement of the affection, they had seen better in an obscure place, than in a place strongly lighted; in a small number, this difference has ceased at the end of a certain time; or even the reverse has occurred; but the greater part, at the period when they were operated on, still presented this peculiarity. Of the other 10, 4 have affirmed that they had not at any time seen better in the shade than in the sun; 6 finally have declared that they had always seen far better when they were exposed to a broad day light, or even in full sun light, than in the opposite circumstances. The last fact,

though difficult to comprehend, is not the less certain; I have employed the greatest care in determining it. It will, moreover, soon be seen that some doubts may be raised upon the simplicity of cataract in two of these cases.

—o—

CLINICAL LECTURES,

Delivered at the South-Eastern General Dispensary, Dublin.

BY DR. M'ADAM.

Pathology and Treatment of Dysentery.

GENTLEMEN—Towards the conclusion of my last lecture, we entered on the consideration of dysentery. I endeavoured, in the first instance, to convey a clear idea to you of what was to be understood by the term; in other words, to determine what morbid action existed in this affection, and in what texture it was seated. I mentioned Cullen's view of its pathology, who conceived the disease to depend chiefly on a preternatural constriction of the colon, occasioning spasmodic efforts which caused the gripings and tenesmus in this disease; this view, I think I proved to you to be partial and erroneous, to be in fact mistaking an effect for a cause—a very common error in medical reasonings. Yet you may recollect, I observed that an acquaintance with this, as well as with several other erroneous theories broached by ingenious and original thinkers, is not without its use; our being aware that it is refuted by more enlarged observation, will prevent our falling into a similar mistake; and an acquaintance with the theory, impresses on our memory an important feature in dysentery, namely, the occasional existence of spasm or spasmodic constriction, which, undoubtedly, is present in many cases, not indeed as the first cause, but as an effect of the irritation produced on the muscular parietes of the large intestines by the inflammation of the contiguous mucous membrane, and perhaps in some instances by the partial propagation of the phlogosis to the muscular coat. Having dismissed Cullen's theory, we next mentioned Dr. Johnson's, who conceived dysentery to be caused by a preternatural quantity of blood being determined to the venous system of the intestines, in consequence of the suppression of the perspiration and biliary secretion; and that the discharges were efforts of nature, to relieve the congested parts from their unusual load of blood. I observed that this view was near the truth; it is probably an accurate account of the pathological state of the parts in the incipient stage of the disease: the first deviation from a healthy condition of the intestinal mucous membrane in dysentery being probably what Andral calls an hyperemia, or an increased quantity of blood in the vessels of the part; and thus is

most likely caused, at least in a great degree, by a suppression of the cutaneous and biliary secretion; but it appears to me, that this in itself is not sufficient to cause dysentery. The vessels of the mucous membrane might be gorged with blood, and relieve themselves by intestinal hæmorrhage, as occurs in melæna or in hæmatemesis, or might establish hæmorrhoids or other vicarious discharges, yet neither melæna, hæmatemesis, or hæmorrhoids, are dysentery. Dysentery is something more than a mere hyperemia of the mucous membrane: it is accompanied with re-action, altered secretion, and more or less fever; in fact it is a true inflammation of the mucous membrane of the large intestines, exhibiting the constitutional, and as far as we can detect, the local symptoms of inflammation during life, and presenting the usual effects of inflammatory action on mucous membranes after death. We came, therefore, to the conclusion that Dr. Mason Good was correct in his definition of dysentery.

You may recollect in my first lecture, I mentioned that the term colonitis had been recently applied to dysentery, which expresses the nature of the disease much more correctly than the latter word; but it appears to me that Cullen and other writers who used this term, employed it in a more restricted sense than is at present understood by the appellation colonitis. By dysentery, Cullen and his followers meant a certain group of symptoms, viz. mucous or sanguinolent discharges, the fæces being retained; and by the term colonitis, we understand an inflammation of the mucous coat of the colon, which is not necessarily, though it may be generally attended with dejections of this character, nor are the natural fæces always retained. The fact appears to be, that when the whole or the greater part of the colon is simultaneously inflamed, a discharge of its contents will most usually take place, though the reverse may happen and the inflammation may suspend secretion and peristaltic action; but when in dysentery, the lower part of the colon and rectum are the only portions inflamed, we shall have in general mucous stools, urgent tenesmus, and retention of the natural fæces. The fact is, the two words mean essentially the same disease, but dysentery has been more frequently applied to that form of colonitis, in which the lower portions of the large intestines are principally affected, and the fæces retained. Having settled this point, I beg leave to revert to what I said in my first lecture relative to the pathology of diarrhœa; I stated that its slightest and simplest form consisted merely in *increased secretion and quickened peristaltic action*; that a more severe degree of the same morbid state produced *permanent morbid irritability and altered secretion*; and that a still more intense grade of the same affection of the mucous

membrane constituted true inflammation with its products, blood, pus, or lymph; and that this latter stage is the disease we usually call dysentery. Diarrhœa and dysentery we find thus to merge into each other, and it is impossible to define exactly the line that separates the most severe form of diarrhœa from the mildest degree of dysentery. I may be thought guilty of some repetition in this short retrospect, but I am anxious to convey a clear idea to the mind of the junior student, of the manner in which gradations of the same morbid action give rise as they advance to different symptoms, and constitute often what nosologists are pleased to call different diseases. I shall now proceed to give you a short outline of the history of dysentery, and afterwards make a few observations on its treatment. The disease is divided into three species; 1st, simple dysentery; 2nd, dysentery accompanied with fever; 3rd, dysentery complicated with other diseases.

The simple form is sometimes preceded by slight rigors followed by heat of surface, thirst, and other pyretic symptoms; but not unfrequently it commences without any fever. It often begins with a common feculent diarrhœa, which gradually assumes the form of dysentery; at other times the peculiar symptoms of the disease appear at the very onset, followed by some degree of fever; and in a third class of cases the attack is preceded for several days by wandering pains in the bowels: it is probable that when it begins with a discharge of natural fœces, a large portion of the colon is simultaneously inflamed; when it commences with mucous stools without natural evacuations, that the lower portion of the colon and rectum are first attacked; and that when wandering abdominal pains are the first symptoms, that the intestinal mucous membrane is generally in an irritable or phlogosed state. In whatever manner it commences, its peculiar characters soon manifest themselves; one of the most remarkable of which is, frequent and distressing tenesmus, and after long continued and painful straining, nothing but a little mucus mixed with more or less blood is voided: the patient suffers much from these reiterated and ineffectual attempts to evacuate his bowels, which are often attended with acute pain in the abdomen and griping; these symptoms are generally exasperated during the night, and attended with more or less symptomatic fever, and sometimes with vomiting: there is, occasionally, permanent abdominal pain and soreness on pressure, though this is by no means constantly present. The urine is scanty and high-coloured, sometimes passed with pain and difficulty, and delirium in some instances occurs. It is of importance to attend to the appearance of the alvine discharges, which vary considerably in character; 1st, we have fœces of natural quality; 2d, scybala; 3d, mucus; 4th, blood;

5th, fleshy or sebaceous matter; 6th, membranous shreds; 7th, pus. These, of course, do not all occur in the same case; scybala, mucus, and blood frequently appear together, though sometimes the two latter only are present; we shall consider each of these discharges separately.

1st. *Fœces of Natural Quality*.—These, as we have before mentioned, frequently appear in the early stages of a case of dysentery, in which when fully formed, the other discharges are the only matters passed. They are also frequently voided towards the termination of an attack of this disease, and their return is to be considered as a favourable sign, the griping and tenesmus abating or wholly disappearing at the same time. But besides being often the beginning and end of this affection, the natural fœces in some instances continue to be passed through the whole course of the disease; this is the simple dysentery of Dr. Good, which is only attended with slight fever, with some degree of tormina and tenesmus, and perhaps a little mucus and blood. It is to be considered as a mild inflammation of the colon, with little or no spasmodic constriction, the presence of which retains the natural fœces.

2nd. *Scybala*.—These are small hardened lumps of fœces moulded into globular masses in the cells of the colon. They are by no means constantly present; I have met with cases of some severity, where I could not discover them, and Dr. Cheyne, in his History of the Dysentery which prevailed in Dublin in the year 1818*, states, that in no instance could he detect them, though every other variety of excrementitious matter was seen in the stools. They generally appear only in those cases where the fœces are retained, and they indicate that spasmodic constriction of part of the colon exists. Their expulsion, whether affected by nature or art, is productive of relief to the more urgent symptoms of tormina and tenesmus.

3rd. *Mucus*.—This is a very frequent appearance; sometimes it forms almost the only evacuation in dysentery—when it constitutes the dysenteria alba or morbus mucosus of the old writers; but it more generally is mixed with blood, or with other evacuations; it is to be considered as the result of increased secretion, produced by the mucous follicles of the intestines participating in the inflammatory irritation of the membrane in which they are seated.

4th. *Blood* is a frequent appearance in dysenteric stools; its quantity varies very much: sometimes it is only in streaks, mixed with fœces or mucus; in other cases it is passed in large quantities, forming almost the entire of the matter voided. It has been supposed to be always the consequence of ulceration; this is the case in some instances, but it may be also the result

* Dublin Hospital Reports, vol. iii.

of various other morbid states. In some instances it is produced by exhalation from the overloaded vessels, or is the consequence of the abrasion of the mucous coat, and consequent rupture of minute vessels; or it may proceed from the bursting of small arteries or veins, from over-distention and increased action; or, according to Sir John Pringle, the blood may flow from the debilitated mouths of the vessels while open, on the internal coat of the intestines. We thus see that intestinal hæmorrhage may arise in this disease *from simple exhalation, from abrasion of the mucous coat, from ulceration and consequent erosion of vessels, from simple rupture of vessels, from debility and atonic relaxation of vessels, without rupture.*

5th. *Fatty or Sebaceous Matter.*—Certain substances, compared by different observers to fat, suet, cheese, or lumps of flesh, are occasionally voided in dysentery; it is probable that in different cases they assume all these various appearances; their origin is obscure, but it appears most reasonable to suppose that in some cases they are the result of a peculiar diseased secretion; in others, they may be some portions of undigested aliment, or be some of the other productions of the disease, such as blood, mucus, or lymph, solidified and condensed in consequence of being retained in the cells of the colon, and compressed there by spasmodic constriction.

6th. *Membranous Shreds.*—I have occasionally seen these substances in dysenteric stools; they resembled small portions of cuticle. They have been supposed to be abrasions of the mucous coat, but others think them to be inspissated mucus; it appears to me more conformable to analogy to consider them to be coagulable lymph, the result of inflammation, and in this respect identical with the membranes expelled from the trachea and bronchia in croup, or from the intestines, in that form of diarrhœa denominated tubularis by Dr. Good.

7th. *Pus* is sometimes voided in dysentery; this is frequently, though not necessarily, a consequence of ulceration, as we know that purulent secretion may take place from a mucous membrane, without any solution of continuity.

Besides the results above mentioned, the fæces in dysentery may assume various other appearances. They may present a drab colour or resemble starch, or be of a light or dark-green, or present the appearance of sanies. It would be a useless task to consider all the varieties which the alvine discharges may exhibit in this disease; but it is well to be aware of the principle, as a knowledge of them is not only of use in illustrating the pathology of dysentery, but may also assist us in our prognosis and diagnosis, and afford, in some cases, an important guide in practice. For instance, feculent stools in the early part of the disease, would indicate the propriety of pur-

gatives; in the latter stages their appearance indicates a relaxation of spasm and a restoration of healthy action to the intestinal canal. Scybalæ point out the presence of partial spasmodic constriction, and would suggest the propriety of opiates and emollient enemata, followed by purgatives. Mucus in large quantities would evince considerable irritation of the mucous membrane, and lead us to suspect that the natural fæces were retained by spasm. Copious discharges of blood will sometimes require the use of astringents, which are not at all proper in the early stages of the disease, or indeed at any time, unless when the hæmorrhage is excessive, and evidently connected with atonic relaxation. It is obvious, therefore, that a close attention to the appearances of the discharges is not unworthy of the physician, who should not despise any means in his power that may assist him in forming a more correct judgment of the nature and suitable treatment of the diseases which it is the business of his life to alleviate or cure.

Many other symptoms may exist in dysentery, besides those we have considered. Dyspnœa is sometimes present, and is occasionally caused by the co-existence of peritonitis. Great distention of the abdomen occurs in some cases, and may arise from the same cause, or from the mere loss of tone of the muscular parietes of the intestines, and the generation of flatus. Very great thirst occasionally prevails, and probably in most instances is connected with an inflammatory state of the gastric mucous membrane: vomiting may take place, the matter ejected being either bilious or stercoraceous. It has been well observed by Dr. W. Philip (On Febrile Diseases, section on Dysentery), "that by an attention to the local symptoms of dysentery, we may sometimes determine what part of the intestines is affected. If the small intestines be the seat of the disease, the pain is often very acute, and twisting round the navel; the sickness and vomiting, and the pain and flatulence of the stomach, are more urgent than when the disease is confined to the large intestines; the fæces are not passed immediately after the griping, and the blood is mixed more intimately with the other parts of the stools. Hiccup, when it occurs at a late period, is a bad sign, but when early and obstinate, we may suspect that the inflammation is seated pretty high in the abdomen; when the disease is seated in the large intestines, the pain is more obtuse; when the stomach and smaller intestines are much affected, there is in general more sickness than griping, and when in the large intestines, more griping than sickness." The worst cases of dysentery sometimes prove fatal in a few days, during which the patient is reduced to the last stage of debility. If he lives many days, the emaciation is extreme. It may prove

fatal, either from the patient's sinking from mere debility, or the inflammation terminating in gangrene; or perforation of the parietes of the intestines may be caused by ulceration, and a rapid and fatal peritonitis be induced in consequence of the escape of the contents of the bowels into the peritoneal cavity; but more frequently the symptoms become mitigated, and the disease subsides into the chronic form. An unfavourable termination may be expected when the debility is extreme; the pulse feeble, the extremities cold, the tongue furred and brown, or glazed, red, and aphthous, the stools dark-coloured, and extremely offensive, the skin cold and clammy, with partial sweats, the face hippocratic;—such a group of symptoms indicate gangrene. A favourable result may be hoped for when the fever is mild, the appetite in some degree continues, the abdominal pain, tenesmus, and frequent inclination to go to stool diminish, natural evacuations appear, and the skin becoming soft and moist.

Such are the principal phenomena which simple dysentery presents, but this disease may be complicated with fever or other affections: even some degree of symptomatic pyrexia generally attends the simple form. Sometimes a real idiopathic fever co-exists and may even precede for some days the local symptoms. Many respectable authorities consider this form of dysentery contagious, especially its combination with typhus. Dr. Harty asserts that simple dysentery is never contagious, nor its combination with remittent or intermittent fevers, but only when complicated with typhus. Others have supposed that the contagion may arise from the effluvia of the feces, which they conceive may even excite a real typhus without any affection of the bowels; but Dr. J. Johnson, of London, asserts that he has seen dysentery in every possible situation—in the east and in the west, in the north and south, in public and private practice, in fleets and camps, and that he never saw a single instance of contagion. In my more limited experience, I never could trace a single case of dysentery to contagion, and I have met with the disease pretty often within the last five or six years. I do not however mean to assert that it may not occasionally assume this character, especially when combined with typhus; this may be probable, though I do not think it proved beyond a possibility of doubt, because it may happen that dysentery may be epidemic at a time when typhus prevails, when of course we shall have many cases where the two affections co-exist without its necessarily following that the former was derived from contagion. We know also that, when an epidemic prevails, certain organs will be peculiarly susceptible of disease, even in persons in apparent health. If, then, the epidemic influence should affect the alimentary canal when typhus is raging,

it is extremely probable that a large proportion of the cases affected with the latter disease will have the fever, as it were, determined to those parts; in other words, have inflammation excited in the intestinal mucous membrane.

Dysentery may be combined with different grades of inflammatory fever, according to the season of the year, and many other causes. The symptoms, of course, will be modified by the nature of the accompanying pyrexia; the local symptoms will be nearly the same, with some aggravation. It is not, however, my design to go into a consideration of all these complications, my object being to give you a short history of the common sporadic dysentery. This disease may also be combined with agues, inflammation of stomach, or other abdominal viscera, and not unfrequently with peritonitis. Of this latter complication I have a case at present under treatment, which I hope to present to your attention at our next lecture.

I shall now give you my view of the treatment of dysentery, which I shall deduce principally from my own experience.

The indications are obvious enough, and are these:—

1st. To reduce the inflammatory action in the affected parts.

2nd. To allay the fever, if considerable.

3rd. To evacuate the bowels, and restore healthy secretion.

4th. To soothe irritation and alleviate urgent symptoms.

I have seldom met with cases of dysentery which required general bleeding, but such do occasionally occur; and we may conclude it to be necessary when the pulse is full, or small and contracted, the attending fever of an inflammatory type, the stools consisting chiefly of bloody mucus, and the abdominal pain constant and much aggravated by pressure. A moderate bleeding of 16 or 18 oz. in such cases produces the best effects: it relieves the pyrexia, abdominal pain, and soreness, and causes the bowels to expel a large feculent stool, when, previous to the venesection, even purgatives failed in bringing away anything like a healthy evacuation. Another benefit is also obtained: both the bowels and the system are rendered more susceptible to the action of remedies, consequently, if we want to salivate or purge our patient, our desire will be greatly facilitated by the previous bleeding; the good effects, then, of abstraction of blood are threefold, viz.:—

1st. It lowers vascular action, and consequently relieves the fever and local inflammation.

2nd. Resolves spasm and enables the bowels to expel their contents.

3rd. Renders the patient more easily affected by either constitutional or local remedies.

In most cases local bleeding will be suf-

ficient, and is preferable when the febrile excitement is not very high, or the abdominal pain and tenderness not very intense. It is indicated if the abdomen is permanently tender on pressure, and some pain is felt there in the intervals between the attacks of griping and tenesmus. In such cases we shall derive much benefit from the application of from 10 to 30 leeches to the abdomen, followed by fomentations continued for some time; after which, we may apply a warm poultice to the parts. The leeches may be applied a second or third time, if the abdominal pain and soreness is not removed by the first application.

In by far the largest proportion of cases, however, little or no abdominal pain or soreness is present, except during the paroxysms or griping; in such circumstances, bleeding or leeching may be dispensed with; and our object should be to evacuate the bowels, restore healthy secretion, allay irritation, and relieve urgent symptoms. The medicines which I have been in the habit of using for these purposes, are mercurials combined with opiates, alternated with mild purgatives, fomentations, aperient and opiate enemata.

The combinations of mercury and opium which may be most advantageously employed are, 1st, blue pill and Dover's powder; 2nd, blue pill and watery extract of opium; 3d, calomel and opium; 4th, hydrarg. c. creta, with Dover's powder, or opium.

Any of these combinations will be more or less useful in the majority of cases; but the practitioner should always endeavour, after having ascertained the nature of the disease, to discover the peculiarities of each individual case, and to modify his remedies, so as to suit these peculiarities; this is one of the great distinctions between the scientific physician and the empiric: the latter has a certain set of medicines for the removal of certain diseases, which he employs indiscriminately, and it is a chance whether he does good or harm; but the former is aware of the infinite shades of variety which the same morbid affection presents in different individuals, and studies to vary his remedial means so as to suit these modifications. Generally speaking, blue pill and Dover's powder may be given advantageously in dysentery, in the following proportions:—
Rx. Pil. hydrarg. $\mathfrak{d}\mathfrak{j}$; Pulv. Doverii, 3 ss m. in pil. xii æqual. dividend sumat ii, 4tis 6tis vel 8vis horis. This combination is adapted to restore healthy secretion, allay irritation, and re-establish the action of the skin; but in some cases, where the stomach is very irritable, Dover's powder may be objectionable; in such instances the blue pill and watery extract of opium will be the most suitable. In other cases we may wish to bring the system quickly under the influence of mercury: then calomel and opium will be preferable; from gr. xii to gr. xx of calomel may be combined with from

gr. iii to gr. iv of opium, and divided into four or six pills, one of which may be given every four or six hours. Again, the bowels may be in a very irritable state, and I have known calomel, or even blue pill, disagree; we may substitute the hydrarg. c. creta, of which we may give $\mathfrak{d}\mathfrak{j}$ or 3 ss. in divided doses, in the course of 24 hours, combined with the same quantity of Dover's powder; or, if pills be preferred, we may combine each dose of the mercurial with from gr. ss. to gr. i of opium. Whatever form we employ, we may continue the mercurial and opiate; either until the system is affected by mercury, or until the local symptoms are relieved, and natural evacuations are established.

Suitable purgatives will assist much in accomplishing these objects. Castor oil, in doses of from half an ounce to an ounce in mint water, if the stomach will bear it, is perhaps the best; but it occasionally causes vomiting or griping: in such cases, I have been in the habit of giving an ounce of the phosphate of soda, in chicken broth or gruel, or small doses of the sulphate of magnesia in mint water, or the tartarized soda in saline draught, or cream of tartar, which is much recommended by Dr. Cheyne. These medicines will be materially assisted by occasional enemata of tepid gruel, mixed with olive or castor oil. By some or other of these means we should endeavour to procure one or two dejections every 24 hours. The opiate and mercurial should be given in repeated doses during the afternoon and night, and on the following morning we should intermit their use for five or six hours, and endeavour to move the bowels by the means we have just mentioned. In this manner we give the patient a chance of a good night's rest, undisturbed by the operation of the purgatives, and also afford the mercurial time to act on the secretions. After pursuing this plan of treatment for 24 or 36 hours, I have in general observed all the symptoms to become mitigated, and healthy fæces begin to appear; and when this is the case, we may expedite matters by a moderate dose of rhubarb and sulphate of potash, after which we should continue the mercurial and opiate in diminished doses, and attend to the state of the bowels for some time after all urgent symptoms have subsided.

The diet should consist of small quantities of farinaceous substance: in the latter stages rice is the most suitable, and the patient may allay his thirst with whey, barley water, or imperial, according to his taste.

Besides this general plan of treatment, peculiarly urgent symptoms may require our especial attention: vomiting is often very troublesome; it may depend on sympathetic irritability of the stomach; in such cases there will be no epigastric pain or tenderness on pressure, or it may arise from gastritis co-existing with dysentery, when pain and soreness on pressure will be detect-

ed in the region of the stomach. Sympathetic vomiting may be relieved by saline draughts, with tincture of opium, or by a blister to the epigastrium; that arising from gastritis will require leeching and blistering, and the other treatment suitable to inflammation of the stomach.

Tenesmus is one of the most distressing and constant symptoms of dysentery: I have known nothing more effectual for its relief, than an enema of from 30 to 60 drops of tincture of opium in two or three ounces of starch mucilage; it sometimes acts like a charm, and gives the patient a good night's rest; but it will not always succeed, and when it fails, a few leeches applied to the verge of the anus, will often be attended with the best effects; this tenesmus appears to be owing to an highly irritable or inflammatory condition of the lower portion of the rectum; in giving opiate enemata, therefore, in such cases, we should administer them in very small bulk, otherwise the stimulus caused by the distention of the intestine will only excite its contraction, and cause the expulsion of the enema, before the opiate has time to exert its sedative influence. This is a point of some practical consequence; the quantity should seldom be more than two or three ounces, which will be often retained when an enema of five or six ounces would be expelled. Gripping is often troublesome, and may be relieved by cloths wrung out of hot water, or decoction of poppy heads, or dry warm flannels sprinkled with spirits of turpentine; I seldom use blisters in this, or indeed in any other abdominal disease. I think, in general, they may be dispensed with; their application deprives us of a valuable means of ascertaining the degree of sensibility of the abdomen to pressure, which is such an important guide in practice; and if they should cause strangury, it would prove a distressing complication, especially to a patient already labouring under an abdominal disease, and might cause an extension of the inflammation to the bladder. The turpentine fomentation may be managed so as to produce a considerable rubefacient effect, and is much preferable to blisters.

These are the symptoms which most frequently demand particular attention. In the latter stages of the disease debility may supervene, and require the use of wine and other tonic remedies; or the sanguineous discharge may be in great quantity, attended with considerable weakness and other symptoms indicating an atonic state; in such cases astringents may be necessary, and the acetate of lead and opium, as before recommended in diarrhoea, may be useful. I shall not enter into the consideration of the treatment of chronic dysentery at present, as I think it probable that cases illustrative of this form may present themselves to your notice before the end of this session. What I have been just stating refers principally to

the common cases of acute sporadic dysentery of this city, of which I have had most experience, and which we not unfrequently meet with in our dispensary practice. I have now a very interesting case under treatment, of dysentery complicated with peritonitis, which I shall present to your attention the next time that I have the pleasure of addressing you; on which I will make a few comments, and also take a short view of inflammation of the peritoneum.

—o—

THE CONNEXION OF PHYSIOLOGY AND PATHOLOGY.

A Paper read before the Medical Society of the London University.

THE object of this paper is to shew how far disease may be considered as originating, or at least making its progress in obedience to certain laws impressed on our nature for the well being of the species at large.

There are those who, unwilling to ascribe anything to chance, consider bodily affliction or diseases as visitations from the Almighty, and prejudice leads many to ascribe to Divine agency that which is in fact the work of man. For it is not by any imperfection in the primitive fabrication of the human body that we are subject to disease, neither is it by any direct dispensations of Providence that we suffer them; but it is by man acting contrary to the dictates of reason, and seemingly striving to subvert the operations of the physiological process, that disease is engendered. Hence man, in his condition of natural liberty, is comparatively free from disease; whilst, under the restraints of an over refined civilization, or in the enjoyment of pernicious luxuries, the number of his ailments become prodigious. The wild beasts, ranging at large after their natural habits, preserve their community from disease; but, incarcerate them, and so deprive them of their proper exercise, or debar the cow from its proper pasture, and you soon have them die of phthisis, of which fact the London dairies in the one case, and the Zoological Gardens in the other, afford ample testimony. Now, the notion of ascribing disease to the direct operation of Divine agency, does appear to me as absurd as the ancient doctrine of the heathens, in which they were considered to be sent down to the earth from Jupiter, enclosed in a box entrusted to Pandora, and subsequently let loose by Epimetheus.

But, waiving the consideration of the causes of disease, it is in the progress of them that we are most clearly enabled to trace the working of the laws of physiology; and in order to do this, as it was impossible to embrace the examination of all the diseases of structure in a paper confined within the limits usually assigned to the papers of this Society, I was necessarily compelled to

make selection of those which seemed best adapted for the elucidation and proof of the argument, that the forms and the nature which disease assumes depends entirely upon physiological laws.

I have taken induration as the first subject for consideration, because the first physiological change perceptible in the ovum is the increase of consistence.

Induration.—The only change comprehended under this head, which can be said to constitute a simple disease, is that of bulk. Under change of bulk is included hypertrophy and atrophy, and changes in the quantity of the fluids of secretion and nutrition, as conditions which are not unfrequently accompanied with an increase of consistence of the otherwise natural and healthy texture of organs. Hypertrophy, however, is the only state in which increase of consistence can be regarded as a simple disease, inasmuch as it does not depend on the presence of a foreign product; the increased consistence in such case being a consequence of a superabundant molecular deposit of nutritive matter of a homogeneous kind, in a tissue, and arranged in a normal order. But that an increase of consistence depending on these circumstances should follow, it is not necessary that it should be accompanied by any change of bulk of the organ in which it is observed; for there may be hypertrophy without change of bulk, from the mode in which the additional deposit takes place. The most remarkable examples of morbid increase of consistence depending on an augmentation in the quantity of healthy solid material which enters into the composition of organs, are met with in those which are naturally soft; as in the medullary and cortical substance of the brain and spinal marrow, in the lymphatic and salivary glands, and in the cellular and muscular tissues, and even in those tissues which are naturally firm and hard, as the fibrous and osseous in which the induration is sometimes extreme. The brain has not unfrequently been found increased to twice and even thrice its natural consistence; that of glandular, cellular, fibrous, and muscular tissues become so hard that they occasion a particular grating sound when cut; and the walls of some hollow organs, naturally soft and flaccid, acquire such a degree of firmness that they preserve, when empty, a globular or cylindrical form, and spring up with considerable force after sudden pressure, and parts of bones acquire that degree of hardness that it has been called *eburnoid* or *ivory-like induration*. The state of induration which we have been considering in the solids, whereby their consistence is increased, applies also to the fluids of nutrition and secretion. The various degrees of fluidity which these products are found to possess appear, in fact, to present us with some of the most simple forms under which the various degrees of consistence of matter can

be subjected to our senses, at least in so far as regards the materials of organic composition. Various degrees of fluidity of the blood are observed, from a watery thinness to a state of inspissation approaching to coagulation; which last is perhaps a manifestation in an extreme degree of one and the same property. It is indeed highly probable that the consistence of blood depends principally on the fibrine which it contains, and may vary in degree with the quantity and quality of this important constituent—an opinion the truth of which appears to be proved by the fact that coagulation of the blood is no other than spontaneous solidification of the fibrine. The opposite state, or extreme fluidity, produced by frequent hemorrhage, or bloodletting, reduces this fluid to the consistence of serosity, chiefly by the removal of the greater part of its fibrine—a further evidence of the influence which fibrine exercises on the consistence of the blood. The consistence of the blood is always increased by whatever reduces the velocity of the circulation below the healthy state. The blood that first flows from a vein in phlebotomy is not only dark but thicker than that which escapes some time after, on account of its having been brought to a state of rest by the constricting force of the bandages, and as the buffy coat is generally increased under similar circumstances, it would appear that fibrine had already assumed a disposition to coagulation; for cessation in the motion of the blood, even when limited in duration, is always accompanied by a tendency to separation in its constituent parts, and to coagulation of the fibrine. Hence it follows that ligatures, tumours, and other mechanical obstacles, situated in various parts of the body, and certain adynamic states, as local and general debility, which retard or arrest the motion of the blood, occasion, in the manner just stated, inspissation and coagulation of this fluid—effects which often lead to other diseased states, that sometimes terminate in death.

Insipissation of the bile is a common occurrence, particularly in the gall-bladder; there, as in the blood-vessels, the transit of the respective fluids must be more or less impeded by such a change. The formation of gall-stones appears in some instances to depend chiefly on this condition of the bile, which being thus prevented from passing along the ductus communis choledochus, undergoes the chemical changes necessary for the formation of these accidental products. It will be interesting now to trace the correspondence between these pathological changes of consistence, and certain corresponding physiological conditions, in order to shew that the connexion of physiology with pathology is so great that they are in fact identical processes; for instance, at the different periods of life, infancy, manhood, and old age, the consistence of the various tissues of the body, and consequently

of organs presenting great variety. In the first they are soft, spongy, largely imbued with fluids, easily torn and broken; in the second, firm, more compact; the fluids are less abundant, and the solids resist considerable efforts to tear or break them. In the last period, the proportion of fluids is still less, and the solids have arrived at their maximum of density and cohesion, so that the degree of softness or induration, *equal to that which characterizes even the extremes of certain pathological states, constitutes the peculiar character of certain parts at the different periods of life.* Thus, the brain of the newborn infant, the mucous membrane, and even the muscles of organic life, are so soft as to be ruptured or broken down into a pulp by a slight degree of pressure or traction, just as we find to be the case in softening of these parts from disease in after life. On the other hand, in advanced life the cellular tissue, membranes, particularly serous and fibrous, the muscles and tendons, bones, the brain and nervous system, and particularly the uterus and ovaries, acquire a degree of hardness equal to that which is known to be produced by certain diseases.

The changes of consistence which are observed to take place under these different circumstances, although sometimes great in degree and extent, are nevertheless to be regarded as physiological conditions, and which mark in a particular manner the intermediate stages and extremes of life. Thus, when the phenomena of organization are about to manifest themselves in the impregnated ovum, nothing is discovered but a colourless liquid; organs, when first perceived in the embryo, are a mere jelly, and during their development, and in proportion as they approach to the perfect state, do they acquire a gradual increase of consistence. This progressive increase of consistence keeps pace with their development, and does not acquire that degree which belongs to each tissue or organ in particular, until it has arrived at a perfect state of formation. Now, we cannot but perceive here, that the degrees of consistence must serve some important end; that even the almost fluid state of parts is not to be looked upon as a mere consequence, either of an entire want or of an imperfect state of organization, but that it is a condition of organs, or of the materials of which they are composed, subservient, if we may so speak, to the elementary acts of life; a condition which facilitates the transitions of form which organs must present before they can attain their more permanent and perfect state. By means of this condition of organs, whether transitory or permanent, nutritive elements subservient to growth and development, find a nidus fitted for their reception, and fluids every facility for passing in whatever direction they are wanted; organs are moulded to the forms of the parts destined to receive and protect them; and

numerous relations of bulk, position, and situation, &c., are reciprocally adjusted between the containing and contained parts, as the changes which they undergo may render it necessary, in order to maintain the integrity and to secure the well-being of each. When, then, we meet with examples of pathological induration, we may, I think, regard them but as the result of the operation of a physiological law, necessary to enable the ovum to arrive at maturity, and the various tissues to assume their proper degrees of consistence as life advances.

Transformations.—All the simple tissues, except the muscular and nervous, are subject to the ascending and descending transformations. As to the mode of their production, they originate in all parts in a process similar to that which presides over normal tissue, therefore they must be under the same laws. Some of the transformations of accidental tissues which occur just as in naturally existing tissues, depend on accidental circumstances: thus accidental cellular tissue must remain as such when formed in the larynx, and is not exposed to motion. But when formed on the surface of the pleura or peritoneum, when constant motion occurs it becomes serous. If placed where its secretion escapes, it becomes mucous, and if in the situation of the head of a dislocated bone it assumes the character of a synovial membrane, of cartilage or of bone. Therefore the nature they assume depends on that of the function they are called upon to perform. They are regulated by the same laws as those of normal tissues; they are not transformed except under the same circumstances as the normal tissues are, as physiological phenomena: thus, accidental cellular tissue is produced by changes in the coagulating lymph. Soon after its effusion, coagulating lymph assumes a reticular appearance: it is cellular, and the cells are filled with albumen. The coagulated lymph is most frequently effused on free serous surfaces: cellular and mucous tissues are as often inflamed, but instead of coagulating lymph, we hear more frequently of pus; or the lymph is absorbed, and therefore no accidental tissue, is found. As to accidental serous tissue, it differs from cellular tissue only nominally; for, normal or anormal, they both consist of the same materials, in the one case cellularly arranged, in the other laminated. The function of both is to connect and facilitate the motion of contiguous parts, and both secrete the same fluids; hence they replace each other with much facility. The circumstances determining its *transformation* into mucous tissue, are similar also to those which regulate the *formation* of this tissue in the development of the embryo. And should that tissue be exposed to the influence of the atmosphere, that condition alone is sufficient to make it acquire the properties of cutaneous tissue. So also the further transformations

into the fibrous, cartilaginous, and osseous textures, are but so many instances of changes in the ascending series precisely corresponding to what is observed during the progress of the fetus towards maturity; there is not therefore a distinct and separate law which presides over the anormal production of these tissues, and another different law which regulates the original formation of them in the healthy subject; no—the same law manifests its operation in both cases, and that law is a property impressed upon certain forms of organized tissues, rendering them capable of assuming a different disposition, in proportion as they are called upon to perform different functions—a general physiological law.

The new Formations.—Scirrhus or Carcinoma and Tubercles.—Mr. Abernethy referred all adventitious formations to the coagulable part of the blood as their origin, and fixed their seat in the cellular tissue, the parenchyma, and on the surface of organs. This plastic substance was supposed by him to be effused in one or other of these situations, to become organized, and to derive the materials of its subsequent growth from the vascular system of the surrounding parts.

The principal varieties of cephaloma are derived from the appearances which the carcinomatous substance presents either in different organs or in different stages of its development. When it presents the appearance of firm coagulating lymph or fibrine deprived of the red colouring matter of the blood, possessing an uniform and fibriform or lobuliform arrangement, with a certain degree of transparency and vascularity, Mr. Abernethy gave it the name of *common vascular or organized sarcoma*. If uniformly disseminated throughout the texture of an organ, so as to transform it into a substance resembling a section of a mammary gland, the application of *mammary sarcoma* was given it by Abernethy; when in colour and consistence similar to the substance of the brain, *medullary sarcoma*.

As to the cause of the deposit assuming one or other of these varieties, no distinct line of separation can be drawn between them; for the carcinomatous deposit when first formed, and indeed frequently for a considerable length of time after its formation, does not furnish us with any signs which shew that it will or will not become organized. Numerous examples have been met with by Dr. Carswell, of scirrhus, medullary sarcoma, and fungus hæmatodes, as they are commonly called, originating in the same morbid state, and passing successively from the one into the other in the order in which I have named them. Indeed, all the varieties are often met with, not only in the same individual, but even in a single organ.

The blood-vessels which enter into the composition of the carcinomatous matter,

vary greatly in number, and sometimes also in bulk. In cephaloma or fungus hæmatodes they present that peculiarity of distribution always more or less conspicuous in newly formed blood vessels; that is to say, the ramifications of which they are composed communicate with a common trunk at its opposite extremities, in the same manner as the hepatic and abdominal portions of the vena porta do with this vessel; they appear to be formed apart from the vascular system of the surrounding tissues, as they can be seen forming from small specks of blood situated at the centre or at the circumference of the carcinomatous mass, in the form of striæ or slender streaks of blood, and gradually assuming a cylindrical arrangement and ramiform distribution, and thereby constituting the proper circulation of cephaloma. The communication which exists between these vessels and those of the organ in which the carcinomatous substance is contained, is frequently very imperfect—a circumstance which, together with the delicacy of their structure, renders them extremely liable to congestion and rupture. The blood-vessels which are seen in scirrhus appear to be no other than branches of those which belong to the neighbouring tissues, and which have become enclosed within the substance of which its several varieties are composed. Thus we have two varieties of blood-vessels—the proper and collateral—and many of the now remarkable phenomena which present themselves during the progress of carcinomatous formations depend on changes which take place either in the proper or the collateral circulation. Thus the shade of colour will depend on the degree of facility with which the circulation is performed; and an imperfect communication between these vessels will give rise to congestion, which may cause rupture of the vessels, and internal or external hemorrhage. In the former case the carcinomatous substance is seen to acquire a rapid increase of bulk proportioned to the extent of the effusion, and when examined afterwards, is found to be infiltrated with blood, or broken down and mixed with clots of this fluid, and irregular masses or layers of fibrine; thereby producing, when the tumour possesses the cerebriform character, appearances very similar to those observed in the cerebral apoplexy after cerebral effusion, and showing that the deposit is but fibrinic. If the obstacle interrupt *entirely* the circulation in the tumour, nutrition ceases and death ensues in all those parts of it from which the obstructed vessels proceeded; the termination of carcinoma in mortification from obliteration of its veins is far from being a rare occurrence.

The next new formation which presents itself for consideration is tubercle.

Tuberculous matter is a pale yellow, or yellowish grey, opaque, unorganized substance, the form, consistence, and composi-

tion of which vary with the nature of the part in which it is formed and the period at which it is examined. It is found in the mucous tissue of organs, on serous surfaces, and, though rarely, in the blood.

The most important fact connected with the composition of tuberculous matter is that, either from the nature of its constituent parts, the mode in which they are combined, or the condition in which they are placed, they are not susceptible of organization, and consequently give rise to a morbid compound, capable of undergoing no change that is not induced in it by external agents. When the process of softening takes place in the tuberculous matter, it is clear, from what was just stated, which is on the authority of Dr. Carswell, that it cannot be, as Laennec believed, owing to any change originating in this morbid product. Besides, in man's organs it is in a state of fluidity, and does not require to undergo the change in question. When the tuberculous matter has become firm, from the resistance afforded to its accumulation, or the absorption of the fluid parts, it generally is, at some future period, converted into a granular-looking pulp or grumous fluid of various colours, from the admixture of serosity, pus, or blood, which have been effused or secreted by the tissues subjected to its irritating influence. As to its nature, its presence in the blood throws considerable light on that subject. It very rarely occurs that tuberculous matter can be detected in the blood contained within its proper vessels, but it is frequently met with in this fluid in the cells of the spleen. This organ is particularly favourable for ascertaining the presence of the tuberculous matter in the blood. Its spongy texture admits of the *accumulation of the blood* in such quantity that the tuberculous matter can be seen forming in this fluid at some distance from the walls of the cells in which it is contained. Thus we can see the blood coagulated in one cell, coagulated and deprived of its red colouring matter in another, and in a third converted into a mass of solid fibrine, containing in its centre a small nodule of tuberculous matter. It also sometimes happens that the blood is effused in consequence of rupture of some of the cells of the spleen, and an opportunity afforded of witnessing its successive or or simultaneous *conversion* into fibrine and tuberculous matter.

Thus, then, we have three morbid products, scirrhus, cephaloma, and tubercle, all mere modifications of fibrine—the latter not susceptible of organization, and acted upon by external physical causes, the two former susceptible of organization, either by the prolongation into their substance of the vessels of the affected parts, or by the establishment of a new set of blood-vessels, just as in the physiological process of cicatrization you may have union by the first intention, or union by the second intention, viz. the effusion and subse-

quent organization of fibrine, either by the prolongation of the vessels of the part, or by the formation of new vessels, and their subsequent union with those of the wounded part. *It is just in the same manner, also, that various parts of the body are first organized in embryo.* The first state of all parts is that of being fluid and inorganic, the formation into vessels being a subsequent stage of evolution; for in the ovum of recent vitalization—in an egg, for example, of 24 hours' incubation—grooves are seen to form in the matter forming the disk of the area umbilicalis, which grooves gradually grow red, so as to constitute vessels for containing and circulating a specific animal fluid; trunks are eventually formed for the branches, and at last the great central engine of the circulation, the heart, is added to the trunk: new parts are formed from materials within reach, as supplied by the adjacent structures already fabricated; and thus the several organs of the new animal make their appearance in a certain determined and beautiful succession.

So that, granting the deposition of scirrhus, cephaloma, &c., to be but the effusion of fibrine, the gradual organization of them is a process strictly identical with that which, presiding over the primitive materials of generation, builds up the rudiments of the embryo, preserves its structure, by the process of nutrition, as long as life continues, and obviates the effects of casual mutilation as far as that can be accomplished by means of reproduction: a physiological law therefore essential to the development, growth, and preservation of the animal body. And I may remark, that even the occasional termination of scirrhus in mortification, from obliteration of its vessels, bears an exact resemblance to the sloughing off of the extra-abdominal portion of the umbilical cord from the same cause—a truly physiological process also.

So that if we divest our minds of the idea that those new formations are *not analogous* to any texture of the body, and adopt the more probable opinion of Mr. Abernethy, that they may all be referred to the fibrine of the blood as their origin, the physiological laws which regulate their progress and course become obvious.

(To be continued.)

Reviews.

On Dropsies connected with Suppressed Perspiration and Coagulable Lymph. By Jonathan Osborne, M.D., President of the King and Queen's College of Physicians in Ireland, &c. 12mo. pp. 64. One plate. London: Sherwood and Co. 1835.

THE author of this little work commences by
ropsy attended with suppressed

perspiration, and coagulable urine, *Renal Dropsy*. He justly gives the merit to Dr. Bright, as having first traced this disease to the kidneys. He acknowledges that he was extremely sceptical on the subject after the publication of the splendid work of that author, and closely investigated the disease for eight years in the clinical hospital of Sir P. Dun. He was at length convinced, by his observations in hospital and private practice, of the accuracy and importance of Dr. Bright's conclusion. He observed the same results in several cases, without a single exception. He therefore calls upon any medical reviewer "to deny their truth in as far as he can do so by the aid of actual observation." The author further informs us, that he has succeeded in producing general perspiration in two cases of diabetes, and he appeased the appetite and thirst with extract of liquorice, until health was restored.

He has ventured to propose the term *anidrosis*, "as designating that peculiar disease of the skin, which consists in its not perspiring;" and he has done this deed with fear and trembling, no doubt, of the classic-loving editors of a moribund periodical. According to them, he ought not to have infringed on our peculiar privilege of manufacturing new terms, but he, as their president, will be pardoned by his worthy colleagues.

Dr. Osborne is evidently a physician of great discernment and judgment, as clearly appears by the faithful observations contained in the work before us. He details thirty-six cases of dropsy which were caused by disease of the kidneys. He gives an account of the experiments of Dr. Wells and Dr. Blackhall, which proved that in many cases of dropsy, the urine coagulated by heat, that there was evidence of inflammatory action, and that in such cases bleeding was productive of very great benefit. The result of these observations led to the employment of the term inflammatory dropsy. Dr. Crampton of Dublin was the next writer on the subject, and then followed Dr. Bright, Dr. Gregory, Dr. Christison, and now our author. The two last named physicians adduced eighty-seven cases in support of Dr. Bright's conclusion. Nevertheless, all the facts have been doubted, and the objections are thus examined and answered by our author.

"The facts produced in opposition, so far

as I have been able to collect them from the article *Dropsy* in the *Cyclopædia of Practical Medicine*, and from Dr. Copland's Dictionary, are the following:—

"1st. That coagulable urine has occurred in adults who appeared to enjoy good health, and also in children.

"2nd. That in some persons it can be produced by taking pastry, or other indigestible articles of diet.

"3rd. That Dr. Darwell has adduced an instance of a woman who died from disease of the heart, and in whose lungs there were scattered tubercles, in whom the kidneys were found in Dr. Bright's first stage of disease, although the urine did not coagulate.

"We shall consider these statements in their order:—

"1st. The continuous secretion of coagulable urine by an individual, who, notwithstanding, remains in the undisturbed possession of health and strength, would prove, either that the secretion was not the result of disease, or that, if so produced, the disease must be unimportant, and inadequate to the production of any sensible disturbance of the functions. Whether such an instance as this can be produced or not, it is impossible for me to say; but I may be allowed to state, that in a considerable number of trials I have not found one example; and experience enables me to assert, that many instances may be found of coagulating urine, which appear to be cases of health, but which an attentive examination would prove to be connected with disease. I may adduce, as a specimen, the case of a young man, who, about a year ago, had palpitations, and œdematous swellings, for which his medical attendant prescribed bleeding and other remedies, with good effect, and then sent him to the country for the restoration of his health: he was lately brought to town, preparatory to the resumption of his ordinary avocations. He made no complaint, the palpitations and swellings no longer existed, and he believed that all his ailments were at an end: but the eye of his anxious mother perceived that there was still something wanting to perfect health, and he was submitted to my examination. His appearance was healthy, his appetite and sleep natural, and the only circumstance which affected him was an anxiety as to the motions of his heart, in consequence of the opinion which his former attendant had entertained, of its being the seat of an organic disease. The heart's action, however, was natural: there remained then no complaint. I requested that a specimen of his urine should be brought, and, on observing its pale and cloudy appearance, tried it by heat, and found it to coagulate. Hence was opened a new field of inquiry; and it appeared that this young man, who, to a superficial view, would have appeared healthy, had a sensation of a dull weight in his loins, was in the constant habit of passing troubled

urine, with dense mucous clouds, had dry skin, which never perspired except after the most fatiguing exercise, and altogether afforded complete evidence, that the kidneys were in the state which has been described by Dr. Bright.

"It is true that in fevers, and other inflammatory diseases, an albuminous deposit is obtained on adding a saturated solution of corrosive sublimate. This urine is high coloured, and abounds in urea, yielding abundant crystals when treated with nitric acid, without requiring any previous evaporation. No coagulation, however, is effected by heat, unless it be so long continued at the boiling point, as to evaporate a large proportion of the water. There are also some individuals, who secrete constantly urine of this description, and in whom it may be traced to a habit of drinking very sparingly, by which a concentrated urine is produced. That a greater quantity of albumen in the urine is required to produce coagulation by heat, than by corrosive sublimate, is manifested by the following experiment:—I procured some urine secreted by an individual under these circumstances, which threw down an abundant coagulum to corrosive sublimate, but not to heat; and I found that an addition of a fortieth of its quantity of serum caused a cloudiness scarcely perceptible, a considerable time after it had commenced boiling, and that nearly twice that proportion was requisite to enable it to form a coagulum. Thus it appears, that such a proportion of albumen as may coagulate with corrosive sublimate, may be consistent with health, but that the quantity producing coagulation by heat is so much greater, as to require a diseased state for its production.

"The albuminous urine observed in children is very probably of frequent occurrence, which yet does not diminish the importance to be attached to it in the case of adults. The urine of children is at all times different from that of adults, in the proportion of its constituents. The quantity of urea and of uric acid is much less; and those are the deficiencies which are usually connected with albuminous urine in the adult. Hence we must not admit the value of albuminous urine as a symptom of a certain disease in the adult, to be diminished by the fact of the same being often secreted in infancy. The secretion is so different, that what is healthy in the adult would be esteemed morbid in the child, and consequently no comparison can be instituted between them.

"2nd. Here, however, we are met by the alleged fact, that certain healthy individuals are able, at any time, to produce a secretion of urine, coagulable by heat, merely by taking pastry, or certain other indigestible articles. Now this fact, if worth any thing as an argument, amounts only to this:—'Coagulable urine is not an indication of the presence of a certain disease of the kidney, because it

may be produced by eating indigestible substances.' In this proposition it is assumed, first, that the transient appearance of coagulable urine is the same thing as the continuous secretion of it, which alone constitutes the indication of the organic change of the kidney, of which we are treating; and, secondly, it assumes that this pathological phenomenon can only be produced in one way; and that, by showing that one way, it is proved impossible that it can be produced in any other. According to this mode of reasoning, we might prove that tenesmus is not an indication of dysentery, because it can be produced by aloetic purgatives; or that coma is not a symptom of apoplexy, because it can be produced by drinking spirituous liquors.

"3rd. Dr. Darwall's case of uncoagulating urine, in connexion with the first stage of diseased kidney, as described by Dr. Bright, carries no weight as an objection. The first stage of the disease is with difficulty distinguished from the natural state, and is most likely to be confounded with, and appears almost identical with, that paleness of the kidneys, spleen, and liver, which occurs in scrofulous cases. And this was evidently a scrofulous case, as appears from the presence of tubercles in the patient's lungs, as stated by Dr. Darwall.

"Those are all the adverse facts which I have been able to collect. But I find, with regret, that by some this important discovery has not been resisted by facts, but depreciated by loose observations, which deserve animadversion, when we consider the injurious effect which such may exercise on the progress of medical science, not so much with reference to this individual question, as to the investigation and settlement of medical questions in general. The truth of the statements made was not impugned; the extent of the field of observation—Guy's Hospital, and the Royal Infirmary of Edinburgh—has not been denied; the number of the observations recorded must have been admitted to be greater than has, within many years, been brought to bear distinctly on any one individual proposition in medical science. And yet all these circumstances were dismissed with the trite remark, that *further observations are required*; a remark which is as applicable to the discovery of the circulation, as to the question before us. By this remark we might throw an air of doubt over the best established propositions. It is so easily made, and, withal, so true when applied to every subject, that it is impossible to prove its impropriety. To this, however, has been joined the observation, that the writers, and the writers' friends, have not had opportunity to observe the connexion, and, therefore, they do not only disbelieve it themselves, but call upon others to do so, without producing a *scintilla* of evidence whereon to ground our disbelief, except the fact that *they* have not had, or have not availed themselves of, the opportuni-

ties of examining the question by the test of a sufficient number of experiments. This must forcibly remind us of the village lawyer, who, when his client had been convicted of stealing a sheep, by the positive testimony of three witnesses who saw him steal it, replied, that that evidence went for nothing, inasmuch as he could produce many more credible witnesses who did not see him steal it. Thus, because those gentlemen have not seen the connexion between coagulable urine and diseased kidney, we are not to be permitted to credit the evidence of those who have seen it; and all the facts before us—the result of long and laborious inquiries on this subject—are to be dismissed with the unmeaning, because universally applicable aphorism, that *further observations are required!*”

Dr. Osborne goes on to state that the number of cases of coaguable urine which fell under his observation was thirty-six, and in nine of these there was disease of the kidney; “while the remaining cases prove the existence of the same disease, so far as it is susceptible of proof by similarity of symptoms; of course of collateral circumstances, and by *adjuvantia* and *lædencia*; and I can with truth aver, that I have witnessed many more cases which are not sufficiently detailed for the present occasion, but which without any exception, corroborated the truth of Dr. Bright’s proposition.”

Our author has treated several cases of dropsy without coaguable urine, and in which the kidneys were healthy; and in no instance has he met with coagulable urine without diseased kidneys, or healthy kidneys with coagulable urine. He proposes the following method for examining the urine:—

“The examination of the urine in this disease must be conducted according to one fixed rule, otherwise we shall constantly meet with apparent contradictions. The urine should be that which is passed in the morning before breakfast. It should not be examined till it has cooled. It then is usually of a pale citrine colour, semi-transparent or translucent, but not transparent like healthy urine; and at the bottom of the vessel there is an opaque, whitish cloud, consisting of the mucus of the urinary passages, and differing from healthy mucus by its greater density and opacity; while in other cases it differs from the healthy state by containing no mucous cloud. On heating this urine, in a spoon, over the flame of a candle, white coagula are formed in those portions of the fluid next the metal, long before the heat has advanced to the boiling point: and when the heat is continued afterwards, the coagula become more

firm and distinct. The lesser degrees of coagulability are signified by its not taking place till the fluid has boiled, or till some of it has been evaporated; by no coagula forming, and the fluid being rendered merely turbid; and, lastly, by throwing up a froth when boiled, which appears to be produced by the smallest quantity of albumen that can satisfactorily be tested by heat.

“I may here mention, incidentally, that I use this mode of examining urine in other diseases besides dropsy, and without any expectation of meeting albumen. When urine with a copious sediment occurs, and it is desirable to ascertain whether it consists of uric acid and the urates, or of the earthy phosphates, I pour off the clear urine, and heat in a spoon the sedimentous urine which remains at the bottom. If the sediment consist of uric acid and the urates, it becomes perfectly clear before the heat is raised to the boiling point; and the sediment is restored to exactly its former state on cooling. If the sediment consist of the earthy phosphates, no such changes can be produced.

“The quantity of urine in this disease is variable, being not remarkable for scantiness, as is the case in other dropsical diseases. On the contrary, in most cases it is nearly equal to the drink, and in some cases exceeds it, approaching in this respect to the diseased secretion of diabetes.

“The state of the skin is one of the most important facts connected with the disease. In all my cases perspiration was extinct, except in a few in which it occurred in the head, or in a transitory manner in the palms of the hands. When the perspiration was restored, in every instance a removal of the dropsical swellings immediately followed. As this part of the subject, however, leads directly to the plan of treatment which I have to recommend, and which differs from that hitherto adopted, I shall postpone this, along with the consideration of the other symptoms of this remarkable disease, to the next opportunity.”

There is a very valuable practical remark made by Dr. Osborne, to which we beg to direct the reader’s particular attention.

“The result of my observations has been, that this peculiar disease stands in an intimate relation with the suppression of the healthy discharge from the skin, its connexion being so constant, that they may be fairly presumed to stand in the relation of cause and effect.

“The force of the circulation in this disease appears to be depressed by the action of some specific agency not as yet ascertained. The surface and extremities are uniformly cold—the latter being either livid or pallid; and, on reviewing my collection of cases, I find that in all of them the pulse was low, undulating, and ranging from sixty to ninety, except when they were complicated with in-

inflammations; and that in those cases it was considerably less frequent than usual.

"The perspiration was either completely extinct, or confined to occasional breakings forth in the head or chest, the palms of the hands, or soles of the feet. The skin was dry and shining, harsh to the touch; and, on examining it with a lens, the usual eminences belonging to the orifices of the follicles were no longer to be found, and the orifices themselves were hardly perceptible, except when they appeared like black dots, in consequence of being filled with the residue of old secretions.

"Whenever general perspiration came on, either spontaneously, or in consequence of medicine, then the cases always terminated favourably."

The next frequent case is the abuse of diuretic drinks and medicines. Our author observed that certain diuretics, when long continued, diminished the urine, and that the secretion became nearly suppressed; and these cases were characterized by coagulable urine. He observed some cases, however, in which the urine was diminished without its being coagulated. The late Dr. Gregory, of Edinburgh, had attested this fact in numerous instances.

Before we give Dr. Osborne's mode of treatment it is necessary to mention, that out of eighty cases of dropsy with diseased kidney, treated in Edinburgh, forty-five died; while of thirty-six cases, Dr. Osborne lost only nine. This is a most remarkable difference, and leads us to quote the practice of our author in detail, for the instruction of many of our readers, as well as the benefit of humanity.

"When a patient was placed under my care, with general œdema, coagulable urine, and dry skin, I directed him to be kept in bed, in order to maintain warmth of the surface, which is usually disposed to be cold. It has happened frequently that, by external heat alone, an improvement both in the quantity and quality of the urine, and a material subsidence of the œdema, have taken place. The first medicine ordered was usually a purgative; and in the choice of this, in order to avoid ambiguity as to its mode of action, I abstained from the use of all those articles which are reputed diuretic; such as compound of jalap, or supertartrate of potash; and I generally employed the senna mixture.

I then commenced a diaphoretic course, by administering foot baths, hip baths, or general baths; the last either of water or of vapour, according as they appeared to agree best with the individual case, at night at the hour of going to bed. The patient also took at night eight grains of Pulv. Jacob. ver. 4.

of Pulv. Ipecac. c. Opio, and 10 grains of Confect. Aromat.

"The usual drink was barley water. In case, however, of tendency to stupor, or headach, the Dover's powder was omitted, or given in smaller doses. In one case, in which no perspiration was produced by the above and other means, it followed the use of the following mixture: \mathcal{R} . Aq. Acet. Ammon. \mathfrak{z} iv. Sulphur. Subl. \mathfrak{z} j*. Vini. Ipec. \mathfrak{z} j. Ext. Opii. \mathfrak{z} gr. ij. Aquæ Fœnic. dulc. Syrup. Sacch. empyreumat. utriusque \mathfrak{z} ij., one ounce to be taken every hour.

"When the vapour bath was not attended by perspiration, from want of reaction on the part of the patient, he was directed to take, while in it, two drachms of the Tinct. Guaiaci Ammoniat.; when, however, (as sometimes happened), both vapour and water baths produced coldness of the extremities, they were discontinued. It is to be observed that the drops of moisture which are condensed on the surface of the patient's body, while in the vapour bath, are often mistaken for perspiration. The occurrence of the latter can only be determined by ascertaining if the skin becomes moist after the patient has returned to the bed, which should, in every case, be warmed for his reception.

"When there was a continued tendency to coldness of the surface, unaccompanied by feeble action of the heart, the diaphoretic preferred was Tinct. Guaiaci Ammoniat. \mathfrak{z} ij. Sulphuris Loti \mathfrak{z} j. Mist. Camph. \mathfrak{z} j. Sp. Piment. \mathfrak{z} ss., or the following: \mathcal{R} . Carbon. Ammon. \mathfrak{z} ss. Mist. Camph. \mathfrak{z} vj., an ounce to be taken every two hours. In connexion with these remedies, administered in the evening with a view to procure a perspiration during the hours of sleep, warm applications were kept up during the day, and frequently a succession of bags of hot salt was maintained, when the heat of the extremities could not be otherwise preserved. When perspiration was restored in one part of the body, as in the trunk, but not in the limbs, the latter were rubbed several times during the day with an infusion of two drachms of bruised mustard seeds in distilled vinegar, with Naphtha, or some other suitable stimulating embrocation.

"Having never failed in removing this kind of general dropsy whenever the entire surface of the body was restored to a perspiring state, it is not surprising that I should bestow the utmost attention on this part of the treatment. In a great number of cases, and especially those connected with bronchitis, the patient took three times daily, an ounce of the following mixture: \mathcal{R} . Balsami Copaibæ \mathfrak{z} j. Misc. Gum Arab. \mathfrak{z} ijss. Sacch. q. s. ft. Emulsio, Adde Aquæ Cinnamomi Mist. Camph. utriusque \mathfrak{z} ij.—The use of this was first suggested by the appearance of the mucus in the urine, which in almost every case

denoted irritation in the urinary passages; and in chronic bronchitis, with scanty and opaque secretion, there is no more valuable remedy. Copaiba has been set down in the *Manuals of Materia Medica* as a diuretic; but I never recognised this effect from it, except through its agency in diminishing irritation in the urinary passages. When given to patients who were kept under the influence of external heat, it always acted as a diaphoretic, and was peculiarly valuable in answering the indications usually co-existing in those cases.

"Next in importance to the restoration of the function of the skin, and indeed in most cases expedient, as contributing to that great object, was blood-letting. It will be recollected that in Dr. Blackhall's work, and in the papers by Dr. Wells, and by Dr. Cramp-ton, before the disease had been as yet traced to the kidneys, there was a considerable body of evidence to prove the advantage of bleeding in cases of dropsy with coagulable urine. The circumstances which appeared to me to afford the strongest indications for general blood-letting were, 1st, the peculiar full and undulating pulse, which resembles that so commonly occurring in nephritis; 2dly, the co-existence of inflammation of other parts; 3rdly, pain or weight in the region of the kidneys; 4thly, the appearance of blood in the urine. The blood drawn was not usually buffed; but the serum, in almost every case, was turbid, and especially, but not exclusively so, when the bleeding was performed within a few hours after a meal. In some cases cupping, or leeching, over the loins was resorted to, when there were some of the indications now mentioned; but when general blood-letting was forbidden by general debility, or other circumstances. Counter-irritation over the region of the kidneys, is a practice which requires some caution in a disease attended with such languor of the capillary circulation, and in which there may often be danger of the formation of intractable ulcers. Yet the application of moderate-sized blisters to the loins is a very suitable irritant, and calculated to promote the action of the diaphoretic medicines. The best mode of applying these is by lint steeped in tincture of cantharides, and covered with oiled silk. This has the advantage of superior cleanliness, of quicker action, and of not tearing the cuticle. Those vesications may be dressed with iodine ointment, or be healed rapidly by means of simple dressing, and thus a rapid succession of irritants be maintained."

The purgatives most commonly employed were senna mixture, castor oil, or rhubarb and magnesia; and some of these were given early in the morning, so that their operation might have terminated before the diaphoretics were employed in the evening. This is

judicious and excellent practice, and is generally overlooked.

When slow arachnitis supervened, and this was a frequent consequence, calomel was freely administered.

Iodine was also employed under the following circumstances.

"In two cases the general œdema was removed under the use of iodine (a grain and a half with three grains of hydriodate of potash dissolved in a pint water, given in the day-time). As, however, both these patients were kept in bed, and by means of external heat a restoration of perspiration had been effected, they cannot be adduced as evidence in favour of the action of iodine in the disease. The object which I had in view in using it was to ascertain how far it would act in causing absorption of the morbid structure developed in the kidney. During the time of the residence of those patients in the hospital, the coagulability of the urine diminished very much, but did not disappear altogether; its colour and transparency were, however, completely restored. Had they been content to have remained longer under the treatment, it is probable that a total absence of albumen in the urine might have been witnessed. In the majority of the other patients, dismissal from the hospital took place when the same degree of improvement had occurred in the urine, but before a total disappearance of albumen had been obtained; and as soon as the œdema was removed, the patients generally thought themselves cured, and became anxious to leave the hospital as soon as possible."

It is important to know that individuals who are cured of the form of dropsy under notice, are very liable to relapse, more especially in cold weather.

"Individuals who have been thus relieved from dropsy by a restoration of the functions of the skin, are liable to relapses if exposed to cold, so as to produce a return of the cutaneous obstruction. Hence they ought to wear flannel next the skin, and to make a timely use of baths and frictions, in case of dryness of the surface recurring. For those in affluent circumstances a residence in a warm climate cannot be too strongly recommended. If the muscular forces permit, exercise should be used till the effects of it are perceived on the skin; and, as œdema of the legs may recur, in consequence of the previous distention and subsequent relaxation of the cellular texture, it is expedient to wear bandages on the legs, until the ordinary vigour of health has for some time been established."

When renal dropsy was complicated with other diseases, Dr. Osborne employed a modified plan of treatment, but one in strict

accordance with his conclusion. His observations are so deeply instructive, that we feel it our duty to cite them.

"When combined with bronchitis, the use of Copaiba, as already mentioned, appeared of the most decided advantage. In dry bronchitis the following mixture usually caused free expectoration:—℞. Gum. Ammon. Gum. Arab. Sacchar. alb. singul. ʒij. Bals. Copaib. ʒss. Aquæ Cinnamomi, ʒiv. A tea-spoonful to be taken every hour and a half. In some instances in which the Copaiba produced nausea, it was superseded by the tincture of cubebs, a medicine which, although totally differing from it in botanical and chemical relations, yet agrees with it in medical as well as sensible qualities. When expectoration continued to be copious for a long time, without any benefit resulting therefrom, and the principal distress arose from its quantity impeding respiration, then, in conjunction with the diaphoretic course, the administration of acetate of lead, one grain, and watery extract of opium, quarter of a grain, four times daily, caused a diminution of expectoration, and, at the same time, diminution of irritation in the air passages. The application of leeches externally to the larynx, the number varying from two to eight, is a most important part of the treatment of bronchitis. The good effects of it are not confined to the larynx, but are apparent also in the unloading of the mucous membrane of the bronchial tubes throughout their entire extent, causing a more immediate cessation of cough, and relief of dyspnœa, than any remedial measure which I have had an opportunity of employing. In addition, blisters should be applied to the upper part of the sternum, and under the axillæ. I have generally used also, in these cases, frictions to the back, and sides of the chest, with the stimulating embrocations already mentioned applied several times daily. Under the use of these and other similar applications, I have frequently had the satisfaction of believing not only that the bronchitis was at an end, but that portions of emphysematous lung were restored to a healthy state. If asked for the evidence of this latter fact, I answer, that regions of the thorax, which had an unnaturally clear sound on percussion, and yet no audible respiration, or which presented the dry crepitus, and clear sound of emphysema, were, when subjected to this treatment, found gradually to resume the respiratory murmur of health, while the peculiar dyspnœa, characterized by longer expirations than inspirations, was at the same time removed, or notably diminished.

"When irritations of the stomach or bowels occurred, they were met by nearly the same treatment as if the disease now before us was not present. Leeches placed over the affected organ, with warm applications externally, and a diet consisting of rice, or

arrow-root, frequently removed them in a few days. A tendency to dysentery, which is one of the most frequent forms of this complication, and which commences by tenesmus and general excitement, was most speedily removed by an enema of four grains of nitrate of silver, dissolved in eight ounces of distilled water, followed in three hours afterwards by the starch enema, with tincture of opium. The first is retained only a few minutes, but the last generally remains several hours, and the irritation is then at an end. Although the efficacy of these measures, no doubt, depends much on the promptitude with which they are applied, yet they have been found not to fail even in long protracted cases of chronic dysentery, when aided by other appropriate treatment.

"When combined with pericarditis, the internal use of tartar emetic, in addition to topical and general blood-letting, produced a great increase of urine, with amendment of all the symptoms; while a decrease occurred on two several occasions, in which it was for a time superseded by squills. In valvular disease of the heart, and, especially imperfect closure of the aortic valves, the patient, in addition to the diaphoretic treatment, took a mixture of a small quantity of tincture of digitalis, with carbonate of ammonia, camphor, and Hoffman's liquor. This combination was intended to act as a sedative to the heart, and, at the same time, as a stimulant to the circulation through the capillaries. Whether it acted in this way or not, may be questioned; but it was certainly followed by warmth of the extremities, diminution of the violent action of the heart, a sense of general relief, and a capability of sleeping with comfort at night.

"The measure, however, which appears to me of the highest importance in diseased aortic valves, is the establishment of a large issue over the region of the heart. On some future occasion I shall bring forward some faithfully reported cases, which prove that organic disease of the valves is capable of great amendment, if not of complete cure, by this and other counter-irritants, aided by the administration of suitable internal remedies.

"General œdema, with coagulable urine, and obstructed perspiration, is not unfrequently accompanied by effusion of serum into the peritoneal cavity. This when not considerable or of long standing, disappears along with the general swellings.

"When, however, ascites has formed either in consequence of chronic peritonitis, or induration of the liver, then, although the general swellings have been removed, we have still to deal with a refractory, and often intractable complaint. In addition to the means which are usually adopted, viz. courses of mercury and purgatives, I am enabled, from experience, to suggest some other measures, to the employment of which I must

attribute the fact, that within the last four years I can recollect only one case in which tapping was performed in my hospital wards, while previously it was a frequent operation. These are the repeated application of leeches to the rectum, so as to unload the vessels of the vena portæ. The applications of various stimulants to the abdomen, as 1st, an ointment composed of equal parts of iodine, mercurial, and cantharides ointments. 2ndly, A paste formed of Spanish soap, spread upon linen, and sprinkled over with muriate of ammonia immediately before being applied; which, by the chemical decomposition that ensues, and the consequent gradual extrication of ammonia, produces heat and redness. 3rdly, Sinapisms, suffered to remain till the pain becomes urgent. These have the advantage of healing with great rapidity. 4thly, Frictions of six or more drops of croton oil. These are, however, rather uncertain: in some individuals producing no effect, and in others followed by erysipelas, extending beyond the seat of the application. 5thly, A mixture composed of one part of tincture of digitalis, and two of aquæ muriatæ calis: a teaspoonful to be rubbed on the abdomen, morning and evening. This compound appears to excite the absorbents, and increases the discharge from the kidneys, but does not produce any sensible redness of the skin. The application of these counter-irritants and excitants of the absorbents may be continued, when the administration of mercury and of drastic purgatives has become no longer advantageous, or indeed safe. It is certain that by these latter remedies the distention of the abdomen may frequently be diminished to a certain extent—but beyond this it is extremely difficult to proceed. Whenever the peritoneum has engaged in the process of morbid secretion, and the cavity of the abdomen has remained distended a certain length of time, it obstinately perseveres in retaining a certain quantity of fluid. The urgent and continuous use of the powerful remedies now mentioned, in such cases, is then not only abortive, but, sooner or later, causes irritation and ulceration of the bowels: and the patient sinks in consequence. It is therefore preferable, in those refractory cases, when the swelling no longer diminishes under the employment of internal medicines, to abstain altogether from their use for a time, and to rely on the application of counter-irritants and bandages, together with regulated courses of diet, and changes of air, until the patient's vital forces are recruited, so as to enable us to make fresh efforts to dislodge the fluid.

"When noises resembling the ringing of bells in the ears, wakefulness, delirium, stupor, or headach, come on, then, if there is increased heat of the head, blood must be taken either from the temporal artery, or by means of leeches applied to the temples, or behind the ears. Calomel must be freely

given, and followed by brisk purgatives. If those symptoms continue, it will be necessary to apply sinapisms to the nape of the neck, and to persevere in the use of mercurials. These symptoms, which are always of formidable import in dropsies, and peculiarly so, because usually neglected, and erroneously supposed to belong to the disease merely as symptoms, may, under this treatment, be very generally averted; and it would be acknowledged, from an examination of the fatal cases recorded in my table, that, though the patients died immediately from the affection of the brain or its membranes, yet in most, if not all of them, peculiar circumstances existed, which had the effect of disarming the remedies now mentioned of their usual powers, and which, in those particular instances, rendered the disease necessarily mortal."

We have now given a full account of the work before us, and we are convinced that every one engaged in medical practice, will freely acknowledge that it is replete with useful and instructive information. It reflects the greatest credit on its author, as a truly scientific and judicious physician, and as an ornament to the profession to which he belongs. His treatise is modest and unassuming, and abounding with faithful observation, which will materially conduce to the alleviation of a very fatal form of disease. We now insert his conclusions.

"1st. That it is always connected with disease of the kidney, which, when sufficiently advanced, is marked by the deposition of a greyish structure, impermeable to injections, within the substance of that organ.

"2nd. That the suppression of perspiration is the most general cause of this disease; and the long-continued excitement of the organ by spirituous liquors, or diuretics, the next in order of frequency and importance.

"3rd. That the most successful treatment consists in the restoration of the functions of the skin; which being accomplished, the disease, if free from complications, never fails to be removed.

"4th. That bleeding and purgatives are also suitable remedies; while diuretics are either injurious, or, if removing the swellings for a time, tend ultimately to cause a return of the disease, under a more aggravated and intractable form.

"The constancy with which either this disease or diabetes is preceded by a continuous repression of perspiration, renders it expedient that this state of the skin should be considered as a peculiar disease; for which purpose it may be called *Anidrosis*. The use of forming this designation is, to direct the attention of practitioners to a morbid state, which escapes observation

because not signalized by pain, but which is not only a disease in itself, but leads to many other and fatal diseases."

In conclusion, we are bound to observe that Dr. Osborne has evinced an intimate knowledge of medical science in this little treatise; he is, in our opinion, a most judicious practical physician, and is eminently qualified to fill the high station of President of the Dublin College of Physicians.

—o—

A Practical Treatise on Urethritis and Syphilis: including Observations on the Power of the Menstruous Fluid, and of the Discharge from Leucorrhœa and Sores, to produce Urethritis; with a variety of Examples, Experiments, Remedies, and Cures; a New Nosological Classification of the various Venereal Eruptions, illustrated by coloured Plates, and exemplified by numerous Cases; and a proposal of a Substitute for Mercury. By W. H. Judd, M.R.C.S. Surgeon in his Majesty's Fusileer Guards, &c. 8vo. pp. 568. Numerous coloured Plates. London: Highley. 1836.

THE author of this work has had the most ample opportunities of studying the diseases of which he treats; as it has been his duty for nearly twenty years to examine several hundred patients daily, for the purpose of detecting the incipient symptoms of Syphilis or Urethritis. He now publishes the result of his observations, and confirms them by numerous cases. The following is his arrangement:—

PART I. Urethritis Venerea.—The author asserts that urethritis, or elytritis (vaginitis) venerea, may cause ulceration within the urethra or vagina, or that these may be caused by the pus of a venereal pustule; that the time of the appearance of both after connexion is the same; and lastly, that both are caused by the same infection. Secondly, that pustules or abscesses in the urethra or vagina, induced by urethritis, occasionally produce secondary venereal symptoms; and that a sore in the vagina from this virus produces a venereal pustule in one party, and urethritis in another, or both occasionally in the same individual. Lastly, that the two poisons are identical.

Thus our author attempts to revive the exploded opinion of Hunter, of Travers, and of some few military surgeons. He

does not refer to the opposite conclusions of M. Ricord, which we published in this Journal, or to those of Dr. Wallace, both of which prove beyond the possibility of doubt, that a venereal sore cannot produce urethritis venerea, (vulgo gonorrhœa) or *vice versa*. M. Ricord examined with a speculum numerous women who were said to have caused syphilis in one individual, syphilis and urethritis in a second, and the latter in a third person; but he invariably detected a venereal sore in the vagina or uterus with elytritis; and, after a multitude of experiments and observations, arrived at the conclusion, that the poisons of syphilis and blennorrhagia or urethritis were not identical. We are not aware, up to this hour, that the speculum vaginæ is employed in our lock and other public hospitals, though it is manifest that, without examining the vagina and os uteri, no one can safely conclude whether ulcers exist or not in those parts. Now it does not appear that Mr. Judd has employed this indispensable and certain mode of diagnosis; and, therefore, we think his conclusions less satisfactory than those of M. Ricord and Dr. Alexander Thomson, who have tried it in a vast number of cases.

The question is one of great importance: it is whether mercury is necessary for the cure of gonorrhœa or not? A preponderating majority of the profession reply in the negative, and practise accordingly—and our author ranks amongst them.

Mr. Judd next gives a minute anatomical description of the tegumentary system, preparatory to the pathology of its various eruptions; and in this he has displayed great ability. This part of the work will be perused with advantage by every student and practitioner.

PART II. On the Origin and Nature of the Venereal Disease.—The author evinces great research in this section. He shews that sexual diseases existed 1450 years before the Christian æra, and that contagious forms are described in Leviticus. He adduces many statements to prove that animals, without contamination, produce secretions that are poisonous to themselves and others. He next reviews the question of identity of the venereal poisons.

The succeeding chapter is the mode of action of the poisons on the organs, and in-

cludes a lucid pathological account of all the symptoms of syphilis.

The author then describes the various forms of syphilitic eruptions, illustrates each by coloured engravings, and classifies all in a new arrangement. He gives a multitude of cases in this section.

The following chapter is on inveterate secondary symptoms, and is extremely well executed. The succeeding chapter is on the influence of mercury, and on a new remedy when this has failed, which is the hydriodate of potass in doses of five grains twice or thrice a day.

Such are the principal features of the work before us. Though we do not agree with the experienced author on the identity of the virus of urethritis and of syphilis, we have no hesitation in pronouncing his treatise a very valuable one. His classification and illustrations of venereal eruptions render the work entitled to great praise, for this subject had long required elucidation. This treatise is a valuable addition to medical literature.

—o—

A Treatise on the Diseases of the Eye and its Appendages. By Richard Middlemore, M.R.C.S., Surgeon to the Birmingham Eye Infirmary, &c. 2 vols. 8vo., pp. 1600. London: Longman and Co. 1836.

THE work before us consists in the course of lectures on the diseases of the eye, which are annually delivered by its author at the Birmingham Eye Infirmary. Few of the Council of the College of Surgeons would suppose that a provincial contemporary was equal to the task of competing with themselves by publishing a work which is fully equal to any one of their productions, and far superior to most of them. We always contended that medical science was not confined to the metropolis, and that many of our provincial brethren had cultivated it with as much assiduity and talent as the law-makers of Lincoln's Inn Square. Mr. Middlemore is entitled to much credit for the great research and personal observation which appear in his voluminous and valuable work. He offers ample evidence of having maturely and faithfully studied all the diseases of the organs of vision, and of having treated them with as great success as other recent authors on the subject. He

candidly and fairly criticises all extant works, and supplies the many defects and imperfections with which too many of them abound. It was scarcely to be expected that a ponderous treatise on the diseases of the eye would so speedily follow the publication of those of Mackenzie and Lawrence; and especially from the pen of a provincial surgeon. We cordially congratulate him for so successful an achievement. This work will be one of standard authority and reference.

—o—

Guy's Hospital Reports. No. I. Edited by George H. Barlow, M.A. & L.M., Inceptor Candidate of the Royal College of Physicians; and James P. Babington, M.A., Member of the Royal College of Surgeons. 8vo. London: Highley. 1836.

THE medical officers of our large hospitals and public charities have long been reproached for their negligence, in not publishing clinical reports of the many important diseases which daily came under their treatment. A new æra dawns on us at the commencement of the new year, for London Hospital Reports have at length appeared in the republic of medical literature. We have now on our table, St. Thomas's, and Guy's Hospital Reports, and we hope the other institutions will speedily imitate so good an example.

Guy's Hospital Reports contain medical, surgical, ophthalmic, and obstetric cases, treated in the establishment, with autopsies and papers read at the Physical Society of the institution.

It will appear by the following list of papers, that many valuable reports are to be found in the present number:—

“Treatment of Fever.—Diseased Arteries of the Brain.—Cartilaginous Deposits on the Medulla Spinalis.—Epilepsy from Local Disease. By Dr. Bright.

“Case of Ovarian Dropsy cured by the Accidental Rupture of the Cyst. By Dr. Addison.

“Operation on the Internal Iliac Artery for Femoral Aneurism, with an account of the dissection of the limb at the expiration of 18 years, accompanied by plates.—First successful Operation for Carotid Aneurism, with the inspection after Death at the end of 13 Years, illustrated by a Plate. By Sir Astley Cooper, Bart.

“Operation on the Subclavian Artery for Axillary Aneurism, with an Account of the Dissection of the Limb after 12 Years, with

Observations, accompanied by a Plate.—Cases of Femoral and Popliteal Aneurism, with Observations. By Mr. Key.

“Unusual Dislocation of the Femur. By Mr. Morgan.

“Cases of Dislocation and Fracture, with Remarks.—Case of Hydrocele of the Neck. By Mr. Bransby Cooper.

“Case of Tetanus, with Observations. By Dr. Bright.

“Case of Traumatic Tetanus. By Mr. Key.

“Summary of Cases in the Obstetric Ward.—Cases of Hard Tumours of the Uterus, with Observations. By Dr. Ashwell.

“Essays read before the Physical Society: Cases of Small-pox occurring in the Asylum for the Deaf and Dumb; and the Re-vaccination of all the Children of that Establishment. By Dr. Babington.

“Observations on the diagnosis of Pericarditis. By Dr. Hughes.

“Catalogue of additions to the Museum, with Introduction. By Dr. Hodgkin.”

We shall publish selections from these cases in our Hospital Reports, and place all that is important in them before our readers, adding comments when necessary.

—o—

The London Medical

AND

Surgical Journal.

Saturday, January 16th, 1836.

THE NEW UNIVERSITY OF LONDON.

A RUMOUR has prevailed during the last week, that the Chancellor of the Exchequer has appointed Dr. Chambers, Dr. Holland, and Sir Benjamin Brodie, to advise the government on the formation of the medical department of the intended University of London. It is by no means surprising that the Colleges of Physicians and Surgeons should be consulted on the foundation of an institution, which must modify or destroy these bodies, or perhaps form them into one faculty; but it is to be feared, that their advice, if acted on, would deteriorate the principles on which the University ought to be founded.

The notorious corruption of the existing corporators, renders them suspicious witnesses, and unworthy of credit; and if the government be so simple as to act upon such evidence, the new

University will be a failure, and a disgrace to its projectors. The ministry is certain of the support of the House of Commons, and will not venture to slight the evidence given before its Committee on Medical Education and Practice. There can be no doubt but Mr. Warburton, as chairman of that committee, will be consulted, and as he is well acquainted with the delinquencies of the existing medical colleges, and evinced a sincere desire to remove them, he will never consent to their continuance. So far as the government and House of Commons are concerned, there is no doubt of a liberal foundation of the University; but their good intentions may be frustrated in another quarter, in which the present corporations have immense influence. It is not the first time that the motto, “might and not right” has prevailed in legislation, or that the interests of nations have been sacrificed on this principle. The colleges possess might, and must be kept in good humour. They have long enjoyed certain privileges, of which they are about to be deprived. The question is, are they to be annihilated, or to form the examining body of the new institution? Will the Court and House of Lords allow them to be destroyed? We feel convinced that they will not. Will the colleges consent to be united in one faculty? That is the question. The profession declares they ought to be united; and if this were accomplished, there could be no difficulty in arranging the medical department of the new University. The artificial separation of physic and surgery is absurd; and the union of the colleges would not interfere with their respective rights, for there will always be physicians and surgeons. There is no valid objection to such a union. The arrogance and impertinence of one of these bodies towards the other are ridiculous. The public and profession have pronounced this opinion. Let us suppose the new University established, and that the candidates for a medical degree

be examined at Pall Mall East, and those for surgery at Lincoln's Inn Square, what could be the collegiate objection. But some of our contemporaries would abolish both colleges, and elect a body of new examiners. This, under existing circumstances is, in our opinion, utterly impracticable. The present colleges are not to be disposed of by a dash of the pen, nor will they be deprived of their privileges. It is however certain that their policy will be reformed and liberalised.

As to concours, it is totally out of the question while the profession is constituted as it is in this country. It may be introduced in another century. In proof of this position we may state, in addition to our former remarks on the influence of the colleges, that government is to elect the examiners of the new University, who are to be most eminent individuals. * This mode of election is as bad as the collegiate ones; but what power can prevent it? Under all these circumstances, one step is made towards reform, and parliament will accomplish the rest. We confess that we do not expect that the profession will be elevated to the rank it holds in other countries; but we feel convinced that it will be raised from its present anomalous and degraded position. It cannot be made worse than it is, and any change must be for the better.

—o—

MINERAL MAGNETISM.

— — —
 "Audi alterum partem."
 — — —

To the Editor of the London Medical and Surgical Journal.

SIR—I perceive there has been a correspondence carried on in "The Lancet," between Mr. Davidson and Dr. Schmidt, with respect to the trial of mineral magnetism at the Westminster Eye Infirmary. I was present at some of those experiments which were there tried; and, perhaps you will favour me with a corner in your Journal, for the purpose of pointing out to some of the visitors to these experiments, the great impropriety of interfering too much with Dr. Schmidt when he is putting the power of his magnets to the test. With regard to

Messrs. Guthrie and Thomson, no one of an impartial mind can find the least fault. Mr. Thomson in particular, who has taken great trouble in the matter, has no pleasant task to fulfil; but it is greatly to his credit that he has acted with the greatest fairness and impartiality. He has always frankly spoken of the failures of the magnet, while at the same time he has never scrupled to acknowledge when he believed a physiological effect had been produced by its application, and which acknowledgments, as he justly observed at the Westminster Medical Society, on its last sitting, if founded on wrong bases, could only be considered as errors in judgment. I am no friend to mineral magnetism myself, because I believe that the effects said to be produced by its application to the body, are more the result of excited imagination; but, sir, though not a friend to this application, I should wish, as a member of a liberal profession, to give to Dr. Schmidt every opportunity of experiment, and I would not allow him to be interfered with in his method of conducting such experiments. That gentlemen have gone to the Westminster Eye Hospital for the purpose of opposing Dr. Schmidt instead of witnessing his experiments, I am pretty well convinced; but I think it would show more taste in those individuals, were they to treat Dr. Schmidt as a foreigner should be treated, with kindness and courtesy. I do not ask for *partiality* to his system of magnetizing; but I ask for a fair trial for him—"a fair field and no favour." Mr. Thomson has striven to get him this fair field, and in so striving, as I before stated, he has had no enviable task to perform. Those gentlemen who are opposed to the views of Dr. Schmidt, will see the impolicy of interfering with his experiments; for, should they be unsuccessful, how justly may the Doctor complain of such interference! I think, sir, the discussion respecting mineral magnetism, has been carried on by some of the parties in a manner more for the sake of opposition than a thirst after truth. Science is not benefitted by intemperate language or hasty expressions; "Good wine needs no bush." That which is true, will certainly be made appear so. Dr. Schmidt, as far as I have seen of him, appears open and frank, respecting all his proceedings regarding the subject of magnetism, that he may have deceived himself is another thing; but it is certainly due to him to receive a proper hearing, and a gentlemanly consideration from even those who oppose him.

With regard to Dr. Ritchie, that gentleman has behaved in the most liberal manner, and has offered to come before the Society for the purpose of giving them, by experiment, all the information he can on the subject—this is as it should be. Let Drs. Ritchie and Schmidt each experiment before the Society—and let the truth be

shewn, as all true friends to science wish it may be.

Yours very truly,

AN OBSERVER.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Compound Comminuted Fracture of the Leg.— Death in five days.—Autopsy.

JOHN H., aged 35, a labourer at the London and Birmingham Railway, was admitted at two o'clock A.M., on the 9th of December, under the care of Mr. Cooper, with compound and comminuted fracture of the right leg, at about two inches above the ankle-joint. The upper part of the tibia was broken transversely, and projected through the wound, which was also transverse, and about one inch in length. The periosteum was denuded to a slight extent from the bone. The lower portion of the bone appeared to be split into more than one piece, and lay in the interosseous space, and was with great difficulty kept in its proper situation. The fibula was broken a few inches above the external ankle. There was another wound below that, caused by the protrusion of the bone, and from which large coagula of blood were removed (probably from rupture of the saphena vein). There was considerable hæmorrhage from both wounds, venous in the lower one, apparently arterial from the uppermost. There was constant and strongly marked spasmodic action in the muscles of the whole limb, which very much opposed the reduction and the maintenance of the parts, when that was affected. The lint was placed on M'Intyre's splint, the knee being nearly straight, and the foot-piece raised upon a block. A bandage fixed the foot to the splints, and another, beginning just above the fracture, was carried up to the groin. Dry lint was placed upon the wounds, and retained by a third piece of bandage. An anodyne was given to allay the spasm. Cold water was applied over the fracture. The accident occurred about 12 o'clock at night, and the man was dug out, during which operation he experienced great pain in his limb: the fracture was produced by a fall of earth, which drove the limb with great force against some brick-work, which was just being erected.

Nine, A.M. Has passed a quiet night; has dosed at intervals; experienced considerable startings in the limb. The bowels have not been moved, but acted naturally, once yesterday morning. Pulse 72; tongue clean and moist. He is unable to pass his urine, it was therefore drawn off with the catheter. The bandages are stained with blood of a bright red appearance.

R. P. ipecac. comp. gr. x;

Hydr. subm. gr. v;

Fiat pulus hora somni sumendus, habeat olei ricini, ℥ss. cras mane.

R. Julepii salini, 3 viij;

Vin. ant. tartar. 3 ij;

Liq. ammon. acet., ℥ ij.

Misce. capiat, ℥ j ter quaterve in die.

10th. Complaints of pain in the heel, and also in his back; passes his urine spontaneously; bowels open twice by the castor oil; vomited once at breakfast time; pulse 96. Face flushed; had an uncomfortable night, with little sleep. At 12, Mr. Cooper saw him, and having removed the supplementary piece of bandage, examined the condition of the wounds. Hæmorrhage of a venous character still continues from the lower wound, though slight in quantity.

As he complained of so much pain in the heel, the bandage was removed, and the limb raised from the pillow; a soft compress being inserted under the heel. Whilst the limb was raised, very violent spasmodic twitchings of the muscles disturbed the fractured parts, and continued to do so, until they were suppressed by the re-application of the bandages. Before the limb was raised, it was lying in a very good position on the splint. The lint, adhering to the wound caused by the protrusion of the bone, was not removed. That on the lower wound, having become loose by the discharge of the blood, was removed, and showed a deep cavity, filled with a dark coagulum. There was some swelling of the limb; the cellular tissue being infiltrated with serum. Had it not been for the pain in the heel, it was to be regretted that the limb was disturbed, as there was no displacement of the fractured bones.

11th. Complaints of pain in his loins; pulse 120, and of moderate strength; tongue rather white; nausea, and occasional vomiting; bowels very frequently moved yesterday by the oil.

12th. Is very restless; puts the uninjured leg out of bed. The splint has got off the block, and the limb was otherwise disturbed. The urine was high coloured and hot; pulse 135; rested during the earlier part of the night. During the day he experienced cold shiverings; complains of thirst; nausea and vomiting not so urgent. Is stated to have suffered much from ague, whilst working in Lincolnshire. Mr. Cooper had the supplementary bandage undone. Limb looking as well as could be expected; some tumefaction of the leg, but not very great. Pieces of oiled silk put over the lint, in order to prevent the bandage adhering too firmly to them, and disturbing them when it is removed. Cold applications continued. In the evening he thought himself a little better; pulse not so quick as in the morning, 128; tongue more coated.

R. Muriatis morphinæ, gr. iss; hæc nocte in formâ pilulæ.

13th. Yellow hue of the skin; great restlessness at night; delirium; tosses himself about—kicks at the bandages and bed-clothes; the tongue is dry, and brown in the centre; pulse 144.

R. Muriatis morphiae, gr. iss; statim sumendum.

The leg is very hot. Mr. Cooper saw him in the middle of the day, and ordered him the following medicine:—

R. Muriat. morphiae, gr. i; 6tis horis.

Hydr. subm., gr. x. Statim.

The bowels not moved for three days. At four in the afternoon he began to dose, and continued to do so until three next morning, when vomiting came on, and he ejected a quantity of greenish-coloured fluid. In the morning of the 14th he appeared more rational, and expressed himself as being better, but his pulse was 144, and more feeble; tongue moist, but coated. Ordered to continue the muriate of morphiae. At 1 p.m. Mr. Cooper saw him, and requested the bandages to be undone. There was at this time great restlessness of the patient; he attempted to get up and see his leg, and was otherwise disturbed. It was distressing to see the fractured ends of the bones moving about among the soft parts. Some grumous fluid was pressed out from the lower wound. There was less tumefaction of the limb. It was to be regretted that the limb was uncovered, for, as far as position went, the fracture was doing very well; and whilst the bandages were removed, great latitude was permitted to the spasmodic movements of the limb. The excitement produced by this proceeding, together with the crowd of students, appeared to be too much for the patient, as he became much more restless, shouting out, spitting, attempting to vomit, rolling his trunk about, tossing up his arms and head, and talking incoherently. The pupils were contracted. Attempts were made to allay all this disturbance, by administering increased doses of morphiae—2, 2½, and 3 grains, in the course of an hour—but without any effect. It was doubtful whether the pills were swallowed, as he spat forcibly after they were given. At 7 p.m. he died. For the last two hours of his life he was struggling violently, so that at one time it required six men to hold him down. He died in a severe convulsive fit—his teeth gnashing very loudly, and his back bent into a curve—his whole frame being shook. At the period of his death the pupils became very much dilated.

Autopsy.—The brain presented the characteristics of venous congestion—a great number of bloody points were observed in its substance when sliced. The lungs were gorged with venous blood, but there was no appearance of pneumonia—puriform secretion in the bronchiæ. Heart natural: walls of the left ventricle very thick, and its cavity very small—an example of “con-

centric hypertrophy”—its cavities filled with pale straw-coloured coagula. Stomach contained a quantity of dark coloured fluid, similar to what he had vomited. Spleen very large, soft, and quite pulpy in some points, broken down, and containing a grumous mass. Liver large, gorged with blood, but otherwise natural. Gall-bladder distended with deep coloured bile. Venous system, as a whole, much engorged.

The tibia was broken across transversely in front, but the fracture ran upwards and backwards an inch and a half. The lower part was broken into four or five portions, only one of which was anyways loose—the rest were closely fixed, either by the periosteum, or by being driven into the cancellous structure. The ankle joint did not appear to have suffered. The fibula was broken transversely about its centre, or a little above that point.

The internal saphena vein and nerve had been torn across—the former had furnished the dark-coloured hæmorrhage. The arteries did not appear to have suffered, but the end of the lower fragment pressed upon the posterior tibial. There was a quantity of blood effused round the fracture, into the surrounding soft tissues. Masses of dark coloured blood were found in the substance of the gastrocnemius and soleus. The posterior tibial vein appeared to have been torn. A section was made of the large portion of the tibia. The medullary membrane appeared vascular, and was plugged up with a clot of blood for some little way above the fracture: this clot projected from the ends of the bone, and was dark coloured. The periosteum was detached for one-sixth of an inch on each side of the fracture.

Mr. Cooper thinks the patient would have had a better chance had full bleeding been had recourse to as soon as the pulse began to rise, for he was a young, stout, plethoric subject, and would probably have borne the loss of blood well. The next similar case will be subjected to a trial of full venesection.

Erysipelas—Bronchitis—Use of the Nitrate of Silver.

Ann W., aged 27, was admitted Nov. 7th, under the care of Dr. Elliotson. She is a housemaid of plethoric habit, and continually subject to sick headach. Says she is not in the habit of taking spirits, that she lives abstemiously, her usual beverage being table beer. It appears, however, that she has lately lived almost entirely on gin. About six months ago, she had a severe attack of headach, from which she was relieved by bleeding and low diet. She has been free from illness since that time till Wednesday last, the 4th. On the previous evening she had overheated herself by walking fast, and on returning home felt chilly, and on Wednesday afternoon whilst engaged

in washing she was seized with headach and rigors. Next morning the face was much swollen and burning hot, and has so continued to the present time. She has now considerable tumefaction of the whole face and part of the forehead; her eyes are almost closed; vesication has commenced on the lower eyelids and nose; lips parched; tongue dry and furred; thirst urgent; skin hot and dry; pulse 124, full; respiration short and laborious; stethoscope discovers sibilant respiration on the left side especially; no cough; urine scanty and high coloured; bowels confined. She was placed on low diet, the head was shaved, and a solution of the nitrate of silver applied to the parts affected.

8th. The cuticle very black; the swelling a little reduced; pulse, 120.

9th. She is delirious, and has been so since ten last night; the swelling of the face considerably reduced; inflammation entirely gone; breathing less hurried; pulse, 120. In the afternoon there was considerable puffiness and heat of the scalp; the solution of the nitrate applied all over the scalp.

10th. No delirium; pulse, 120; skin hot and dry; much thirst; allowed small beer to drink; erysipelas removed.

12th. She has caught cold. (It appears that during her delirium she got out of bed, and the night nurse neglected to inform any one of it at the time; she remained on the floor for two hours). Pulse hard, 120; skin hot, dry, oppressive thirst; she is very hot except in her head, which feels cold to her, but is hot to others. V. S. $\frac{3}{4}$ viij. She gives rational answers but mutters nonsense.

15th. Erysipelas cured; she has cough and dyspnoea, evident bronchitis; a blister applied to the chest, and calomel, five grains every four hours.

17th. Still sonorous and sub-mucous respiration; pulse, 120. Pil. hydrarg., gr. x, nocte manequ.

21st. Pulse, 144; erysipelas has reappeared; tongue dry; the nitrate of silver again applied.

22nd. The swelling of the face reduced; forehead hot and puffy; pulse very weak; she is delirious; she was purged all night; a little kino was given, which relieved her.

23rd. Heat of forehead reduced, and she is better.

24th. Gums tender; omit medicines; bronchitis again.

27th. Pulse, 130, weak; debility extreme; countenance pale; lips, gums, and tongue pale and dry; thirst oppressive; respiration rapid.

28th. Vermicular pulse, 132; skin dry; tongue very dry; respiration 40 a minute; subcrepitant rattle all over the chest. Died in the night.

Sectis Cadaveris.—Brain—Congested posteriorly, but pale anteriorly, apparently from position after death; the ventricles contained a little fluid. Heart—Left ven-

tricle in a state of concentric hypertrophy; lungs congested—œdematous; both contained an immense quantity of watery mucus in the bronchi; in addition, the right lung was more congested than the left, and there were several patches of grey induration in the upper and lower lobes; the middle lobes free from them. Stomach—Several circumscribed patches of red: it contained much green fluid. Mucous membrane not indurated nor softened. Intestines healthy; subcutaneous cellular tissue under the blackened portion of the skin healthy; left ovary contained two cysts. Uterus contained some purulent fluid; there was a syphilitic ulcer at the upper extremity of the vagina.

—o—

LONDON MEDICAL SOCIETY.

Monday, January 11, 1836.

DR. WHITING, PRESIDENT.

Case of supposed Protracted Pregnancy.—Duration of Pregnancy.—Tubercles in the Placenta.

MR. STATAM said he had to bring before the Society a case which involved a medical question of considerable importance—the protraction of utero gestation: the case which he supposed was an example of this circumstance, had certainly many facts connected with it which led him to form that opinion, whilst he was convinced there were some things against it. The early symptoms of pregnancy were so ambiguous that it was always a matter of great difficulty to determine on the precise time of conception. He believed, however, that it was admitted both by ancient and modern writers that the duration of pregnancy was not always limited to nine months. Several cases were related by modern writers in illustration. Dr. Collins had published a case in the 25th volume of the Edinburgh Medical and Surgical Journal, in which gestation continued for eleven months. Dr. Ryan, in his *Medical Jurisprudence*, mentions that he was engaged to attend a delicate lady who menstruated the last week in February, 1826, and quickened in July, but was not delivered before the 28th of February, 1827, nearly twelve months from her previous indisposition. Dr. Merriman had known cases which lasted till the 44th and one even to the 46th week. There were various other undoubted authorities in support of the possibility of pregnancy being protracted. It was known that domestic animals were very irregular in their periods of gestation—why might it not be so in the human female?

The patient, whose case he had to relate, was 32 years of age, of short stature, and the mother of seven children before the one in question. She always menstruated regularly between each pregnancy; and the catamenia always ceased when conception

had taken place. They ceased last on the 7th of December, 1834; the woman was not delivered until the 5th of December of the following year—twelve months within two days. It was worthy of remark, that at the last cessation of the catamenia she had aching pains in the back: soon after this period, morning sickness and the other symptoms indicative of conception, came on: she quickened in the beginning of April; and afterwards frequently felt the motions of the fœtus, and the abdomen gradually increased in size, and was so large near the termination of the pregnancy, that he considered she would have twins. In July, six months after, Mr. Statam saw her for the first time; she had suffered from a sensation as though a heavy weight had fallen on her left side; she had pyrexia and great pain in the region of the uterus; in fact, she was suffering from an attack of inflammation of that organ; the disease afterwards affected the peritoneum; bleeding, calomel, and opium, and the usual remedies were resorted to; she continued very bad for a fortnight, and had two slight relapses before the expiration of a month. She did not feel the motion of the child during that time. Mr. S. now instituted an examination *per vaginam*, when he found the os uteri so high up that it could scarcely be reached with the finger; the body of the uterus was directed to the right side, and the cervix had become shortened, and was pressed backwards. This was five months before delivery; had it only been the fourth month of gestation, these symptoms would not have been present. At the expiration of the month, the motion of the child was again felt; but the constitution of the mother became exceedingly debilitated; she had cough, dyspnoea, and night sweats; there were, however, no signs of phthisis when the chest was examined. He prescribed a tonic, and the patient recovered after about a month. Mr. Statam left her in September. In October, a thick discharge coming on, she was induced to think she was in the commencement of labour; but it went off in a few hours; but recurred again several times, and with more frequency, till the 5th of December, when she was delivered of a child, which, however, was not larger than usual; this being contrary to the opinion of the generality of writers, who consider it necessary the child should be larger. Now the first point that he (Mr. S.) considered necessary to be inquired into was this—was the protraction owing to the suspension of growth of the child during the disease of the mother? or, was it that there was a deficiency of nutriment from her extreme debility? he could imagine that a fœtus might cease to grow from such causes; he considered the strength of the mother materially affected the growth of the fœtus. Another circumstance which might have some influence, was the extreme state of mental depression

under which the mother laboured from some domestic affliction. Dr. Collins mentions this as one of the causes of protracted pregnancy. Now there were several reasons which led him (Mr. S.) to believe that the above case was one of protracted pregnancy.

1st. The length of time the catamenia had ceased.

2nd. The period of quickening; which was the time the woman usually did so with her other children.

3rd. The advanced state of the uterus five months before delivery.

4th. The discharge at the ninth month.

Against this opinion it might be advanced that the cessation of the menses was the result of amenorrhœa, particularly as the cessation was attended with pain, &c. The usual size of the child might also be mentioned. In answer to questions Mr. Statam said, that after delivery the abdomen was of the usual size; the patient had an uncommon good "getting up." He considered the immense size of the uterus depended on its being very high up, as it pressed upon the diaphragm and obstructed respiration. Mr. Statam grounded his opinion on *all* the points, not on *one* alone—he thought the chief proof was the state of the cervix uteri at the time he examined it. He believed that Dr. Ryan's was the only recorded case in which pregnancy had continued so long as in his case. He (Mr. S.) did not examine the woman at about the nine month. There was not a larger quantity of liquor amnii than usual: indeed there was much less than in general. He did not examine the spine.

Mr. Bryant did not consider there was sufficient evidence to conclude that this was a case of protracted pregnancy. The cessation of menstruation was at best a very doubtful indication, as in the early months of pregnancy a discharge simulating the catamenia might be present. The great enlargement of the abdomen might result from incurvation of the spine.

Mr. Heale thought this was certainly a case of protracted gestation, though he did not consider the cessation of the catamenia any proof; with regard to the time of quickening, he considered it might vary much in the same woman during different pregnancies.

Mr. Lenneker thought that the occurrence of inflammation of the womb after the quickening might be a disturbing cause of the protraction. He believed in those recorded cases of protracted pregnancy; authors had not mentioned whether there had been disturbing causes present. He thought accidental causes affected the period of gestation.

Mr. Crisp thought that if disturbing causes had any influence, there would be many more protracted cases than there are.

Some discussion took place as to the influence the health of the mother exerted over that of the child. It was contended

on one side, that if the mother were in a bad state of health during pregnancy, the child would be thin and puny—and on the other, that children healthy, large, and strong, were frequently the offspring of emaciated parents, and *vice versa*. Several cases were related on each side of the question, in illustration.

Mr. Roberts believed he could mention an *unique* case in which tubercles were found in the placenta. The woman in whom the fact occurred had two children still-born at the eighth month; the third was born alive also at the eighth month. The tubercles in the placenta were none of them large, but in various stages of development: some of them were suppurating; they were scattered over the whole mass. The woman was not consumptive.

—o—

MEDICAL BOTANY.

PLATE XIII.—DAPHNE MEZEREUM.

Mezereon, Spurge Olive.

Off.—The bark of the root.

Mezereon is indigenous. It is also cultivated in our gardens as a flowering shrub. The bark, which is taken from the trunk, larger branches, and root, is in slips of greater or less breadth, sometimes flat, sometimes convoluted, very tough, thin, striated, and fibrous; epidermis smooth, olive coloured, or greyish brown; bark very thin, soft, of a dark green, liber yellowish white, fibrous tough. Smell when recent, nauseous, little when dry; taste at first sweetish, afterwards very hot and corroding the mouth. It is torn off in the spring before the leaves appear. When applied to the skin in its recent state, or infused in vinegar, it raises blisters. It has been most minutely analyzed by Gmelin, who found wax, resin, daphneine, red colouring matter, uncrystallizable and fermentable sugar, azotiferous gum, lignine, brown colouring matter, malic acid, and malates. Daphneine was discovered by Vauquelin in the *Daphne alpina*. It crystallizes in fasciculated prisms, colourless, transparent, brilliant, very soluble in water, alcohol, and ether, assuming a golden colour with a little potass or its carbonate, precipitable by acetate of lead, and converted into oxalic acid by nitric acid. It evaporates, on being heated, in acrid vapours.

The apothecaries use the entire root, and not the bark alone, of which the wood is yellow and hard, and has the same properties as the bark.

Med. use.—The root was long used in the Lisbon diet-drink, for venereal complaints, particularly nodes, and other symptoms resisting the use of mercury. The bark of the root contains most acrimony, though some prefer the woody part. Mezereon has also been used with good effect in tumours and cutaneous eruptions not venereal.

—o—

On the Use of Mineral Magnetism.

M. Becker has for a long time employed mineral magnetism with success, especially in affections of the nervous system. There are three methods of applying magnets—1st, by simple traction, 2nd, by prolonged application, 3rd, by apposition, continued for more or less time: M. Becker prefers the last.

By the first method, the magnetic effects continue for a very short time. The second, the results of which are indisputable, has the following inconveniences:—1st. It is much more painful than the first. 2nd. It requires pieces of magnetised metal properly tempered, that cannot be everywhere obtained. 3rd. These pieces of metal very soon rust, and thus lose their magnetic influence. They should in these cases be repolished; but this precaution is for the most part neglected by patients.

The third method of magnetism, which M. Becker has used almost exclusively for some years, because it is the most simple, and is the most supportable by every patient, is the *method by apposition*. The diseased part is placed for ten, twenty, or thirty minutes to the north pole of a magnet, or else it is put at the side, or else during the night under the pillow or mattress. This practice has often succeeded with Dr. Becker, who relates three cases, two of neuropathy of vision, and one of vertigo, that were cured by apposition. In the last case, the magnet was only put under the pillow, and from the third night the pain ceased, and did not again return.—*Journal d'Hufelande*.

—

Acute Articular Rheumatism quickly Cured by the Use of Tartarized Antimony in large Doses.

A young man, aged 21, was seized with a very severe amygdalitis—erysipelas of the left side of the face supervened almost immediately; some days afterwards, he was attacked with pains in the scapulo-humeral, humero-cubital, and right radio-carpal articulations. Tartarized antimony was administered in six grain doses, and in two days the pains were removed. The patient continued the use of the medicine during three days, in doses of eight, six, and four grains. He then thought himself quite recovered, but the pains returned with increased severity; he again had recourse to the antimony, which he continued to take in decreased doses, and was perfectly cured of the disease.—*Gaz. des Hôp.*

Oraxis.

M. Redvaté has most successfully cultivated the *oxalis crenata*, a single tubercle of which affords a large quantity of wholesome food, the taste of which resembles both the common and sweet potato, or the *convolvulus vatata*.

French Medical Almanack for 1836.

The French Medical Almanack for 1836, just published, by M. Domange, Secrétaire to the *Bureau de la Faculté*, presents the following table of the medical practitioners of Paris:—

Doctors in Medicine and Surgery 1,220
Id. in 1833 1,090

Increase in 1836 . . . 130

An equal number of physicians who figured in the general list for 1833 have ceased to be recorded in that for 1836, either from absence or mortality, 130.

It appears that the number of physicians, who established themselves in Paris in the space of three years, was about 260.

Among the 1,220 doctors inhabiting Paris, there are three commanders of the Royal Legion of Honour, 34 officers, and 255 esquires.

Students registered by inscriptions:—

1832.	1833.	1834.	1835.
5,378	6,746	7,667	8,262

Prize of the Academy of Sciences.

M. Gannal has obtained a reward of 3,000 francs for his method of preserving dead bodies, without precluding him from the prize that may be awarded him when the utility of his discovery, which at present appears undoubted, shall have been confirmed by numerous and long-continued applications.

Sulphate of Copper in Croup.

M. Zimmermann began the use of this medicine in 1827, and published three papers on the subject in 1830. Since that period, he has used sulphate of copper in fifteen other patients, amongst whom he lost two cases. Though M. Zimmerman at the same time employed sanguine emissions, he remarks that it is impossible to mistake the good effects of sulphate of copper in croup. In opposition to the opinion of Gettanau, who denies the good effect of this therapeutic agent, except as an emetic, he recognised in it peculiar properties that do not belong to any other emetic; thus, sulphate of copper causes diarrhoea, salivation, perspiration, and appears evidently to resolve the plastic exudation in the third period, or at least to hinder coagulation, and seems to exercise a specific action on the lymphatic system. In the second and third periods, he commenced with local sanguine emissions, and in different circumstances by general bleeding. He recommends the sulphate of copper to be given from a teacup, and never from a silver spoon, and it should be stirred with the finger or a piece of wood.—*Gaz. Med.*

Intermittent Pleuro-pneumonia.—Neuropathy of the Pneumo-gastric Nerve.

This very rare affection is characterised by the following symptoms: difficult respiration, dry cough, or stringy expectoration, pulse full. The disease commenced with an intense fit of shivering, followed by heat and a severe cough. Every day at noon there was an exacerbation of all the symptoms, commencing with very great shivering, cough, and intolerable pain in the chest, a fit of suffocation, and finally perspiration; at the end of an hour the paroxysm terminated. Ammoniacal mixture was first given; then, two grains of quinine every two hours. The very next day the fit was scarcely perceptible; the day after, there was no fit at all. An observation worthy of remark is, that the symptoms of pleuro-pneumonia, which continued, though in a very slight degree, it is true, in the intervals of the paroxysms, disappeared completely, and in a very short time, simply by the effect of sulphate of quinine.—*Gazette Medicale.*

Intermittent Frontal Neuralgia of one Side.—Suborbital Neuropathy.

The pain first supervened after a fright; it returned every day at two o'clock, commencing at the origin of the suborbital nerve, and extending along its course. The fit lasted from half an hour to an hour. Two grains of sulphate of quinine given every two hours for three days, produced in so short a period a complete cure. The same prompt and favourable effects were observed in another case of frontal neuralgia that appeared without any known cause.—*Gaz. Med.*

Treatment of Venereal Buboës by Blisters.

Doctor Suttens, junr., has published a series of observations that prove the good effect of blisters in the treatment of buboës. He employed blisters from the commencement of the disease, and repeated them until the tumour was dissipated; from four to eight blisters were necessary, and the cure required three each week.—*Gaz. des Hôp.*

—o—

BOOK.

Remarks on the Unity of the Body, as illustrated by some of the more striking Phenomena of Sympathy, both Mental and Corporeal, with a view of enlarging the grounds and improving the application of the constitutional treatment of Local Diseases. By George Macilwain, M. R. C. S. 8vo. pp. 294. London.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

London Medical and Surgical Journal.

No. 203.

SATURDAY, JANUARY 23, 1836.

VOL. VIII.

ESSAY

UPON SOME POINTS OF THE
HISTORY OF CATARACT;*Thesis presented to, and sustained before, the
Academy of Medicine of Paris.*By THEODORE MAUOIR,
OF GENEVA,*Doctor of Surgery; Member of the Medical
Observation Society.*

TRANSLATED

By ALEXANDER THOMSON, M.B.

Of St. John's College, Cambridge.

"Observer la nature, rassembler beaucoup de faits pendre leur ensemble pour principes Qui sommes nous pour nous détourner de cette voie."—BICHAT, *Œuvres Chirurg. de Desault*.

SECT. VII. *Mobility of the Pupil—State of the Vision.*

In all the patients operated on, setting aside the rare exceptions which are about to be indicated, the pupils were regular, very movable, and the faculty of seeing was not so much abolished as to hinder them distinguishing easily the light from the darkness, and perceiving very well the passage of an opaque body before their eyes; several even still saw the contour of large objects, and recognized vivid colours.

As to the exceptions, the following is what occurred:—1st. In a man of 64 years of age, the pupils had a dilatation of about half a line: they were very slightly irregular, their mobility very doubtful; nevertheless the patient well distinguished light from darkness, and even the contour of bodies: he had always seen better in a sombre than in a very light place, and had never had pains in the head. A single eye was operated on; no adhesion hindered the exit of the crystalline; the patient saw immediately the day light; but the eye was destroyed by suppuration. It appears rather probable that, in spite of the state of the pupils, this was not a case of amaurosis.

2nd. The following facts present some very different circumstances: it is relative to a man of 45 years of age, of whom men-

tion has already been made; for 30 years, at least, his right eye had distinguished only light from darkness, and not even the evening from the middle of the day; he remembered nothing of the commencement of the disease, and said that he had never had pains of the head; the pupil was regular, very movable, from one to two lines in diameter, the cataract of a uniform milk white: the other eye was perfectly healthy, with the exception of some spots (taies) of recent date. This man was operated on: after the incision of the cornea, and without any other apparent lesion, there flowed out a moderate quantity of the vitreous body, rather fluid: the operation was suspended: no accident occurred. A month later, the extraction was again attempted: immediately after the section of the cornea the aqueous humour flowed out as usually, but a little thready: it was evident that it contained in solution a small quantity of the vitreous body; nevertheless, the crystalloid body was opened with the needle, and immediately the cataract flowed out entirely, under the form of a milky fluid: the pupil remained perfectly black. Seven days later, the cornea and the pupil were very clear, the iris contractile, the patient could tell, though with difficulty, whether the fingers shewn to him were approached or removed; little by little this faculty was lost, without any pain; and when this man quitted the hospital, fifteen days later, he had in the pupil a greyish, triangular spot, which hardly occupied a third of it; the remainder of this aperture was very black, yet the patient perceived no more than the daylight: the iris had resumed its contractility. This case is of a nature to leave doubts upon the state of integrity of the retina, and of the vitreous body previously to the operation.

3rd. The third is relative to a man of 72 years of age, not subject to cephalalgia. His sight had been declining for several years back, but he could not state the precise period. During this time he had always seen better in the shade than in the sun; the pupils were regular, of about a line and a half in diameter—they contracted very little. The patient could not guide himself, but he still distinguished well the contours

of bodies. Extraction was practised on a single side; the patient immediately saw the objects surrounding him. Unhappily, inflammation declared itself, and the cornea became opaque. In spite of the little mobility of the pupils, it cannot, I believe, be admitted that this cataract was complicated.

4th. The fourth case is one of the most remarkable; it relates to a man of 45 years of age, of whom mention has elsewhere been made, and of whom the two eyes were suddenly lost—the second while reading a journal. When he presented himself at la Charité the pupils were very narrow, at most of a line in diameter, the left regular, but very little movable; on this side the patient distinguished the day from the night, but nothing more. The right pupil was a little oval from above downwards, and completely immovable; the right eye did not even perceive the light of day: the cataracts were brilliant, of a pearl grey. Professor Roux operated on the left eye: immediately after the extraction of the crystalline the patient saw his fingers, and demanded so pressingly to be operated on on the other side, that M. Roux finished by consenting thereto. In spite of the narrowness and immobility of the pupil, no adhesion interrupted the extraction, and immediately the patient assured us that he saw likewise his fingers, but less clearly than on the other side. A month afterwards he quitted the hospital, in the following state: on the left the cornea was very clear, although the flap was a little prominent; the pupil very black, immovable, rounded superiorly, irregular below, and prolonged under the form of a notch, as far as the cicatrix of the cornea, to which the iris adhered in a small extent. With this eye the patient recognized a watch very well, and distinguished even the hands of it, though with a little difficulty; but it seemed to him that he saw incessantly a spider's thread stretched before him. On the right, the cornea was clean, the pupil rather narrow, not exactly rounded, perfectly black, immovable; with this eye the patient saw more distinctly than with the other; it seemed to him that he could read large characters: he felicitated himself greatly on the success of this second operation. However, his sight presented this peculiarity, that it was very short: when he walked alone he was obliged to move with much precaution, for he saw scarcely at two or three paces before him.

5th. The following case is interesting in other points of view: it relates to a man of 50 years of age. In splitting wood, during the winter of 1831, a fragment struck his eye, which remained red and painful for four or five days; henceforth the sight declined upon that side, and in three or four months it was destroyed. The right eye commenced to be weakened as soon as the left was lost, and took nearly the same time to arrive at

the same point. The patient had never been subject to pains of the head, nor ever had he seen better in the evening or in the morning than in full day-light; on the contrary, at the period when he saw no more than sufficiently to guide himself, he preferred a vivid light. When he presented himself at la Charité his pupils contracted, but slowly, and to a very small extent; the right was rounded, regular; the left was prolonged a little outwards, into a sort of oval depression. The iris appeared a little dilated forwards; the cataracts were of a greyish-white, scattered over with clouded spangles: the patient distinguished the day from the night, but nothing more. The extraction was practised on both sides, and presented nothing particular, except on the right side a slight lesion of the iris at its external parts.

This man quitted the hospital seven weeks after the operation, in the following state:—the two corneæ were perfectly clean; the pupils very black, the right notched outwards and downwards, the left rounded, nearly of two lines in diameter; both appeared immovable; scarcely did the patient perceive the daylight, far less, said he, than before the operation.

Did there exist an affection of the nervous parts of the eye at the period when this man came to la Charité, or else, was that affection not developed till after he had been operated on?—I cannot say; the preceding history shows that exclusive dependance cannot be placed either upon the little mobility, or upon the irregularity of the pupil, or even upon the almost complete loss of the faculty of seeing the light, for declaring that an amaurosis complicates the cataract. In the patient who forms the subject of this last observation, there was, it is true, a little pain in the eyes after the operation; the right particularly was the seat of some lacerations, the conjunctiva red; there was some pain in the forehead, and in the teeth of the upper jaw: and admitting that these symptoms can account for the loss of the right eye, which, however, presented nothing denoting an internal inflammation, how explain the loss of the left, which scarcely experienced some prickings?*

* I have heard Professor Roux say, in reference to this patient, and to that of the second observation, that he had sometimes seen individuals, on whom extraction had been practised, present, without the development of any consecutive accident, the following state:—

The eye appeared perfectly healthy, perceived the sensation of the light, but by no means distinguished objects.

Or, the following is the manner in which, according to him, this phenomenon may be explained:—We only see distinctly the images of bodies on account of the convexity of the crystalline lens, that unites

6th. An old maid of fifty years had two cataracts. On the left the sight had gradually declined without cephalalgia, and at the end of four years the patient could no longer conduct herself without a guide; the right eye had become weakened shortly afterwards, and had arrived at the same point in 21 months. The left pupil was slightly irregular, *immovable*, of about a line

the rays at the bottom of the eye. Let a concave surface be supposed in the place of the convex surface of the crystalline, for instance, the anterior depression of the vitreous body, the luminous rays will, it is true, be refracted in passing from the aqueous humour into the vitreous body, and will approach to the ordinate (*normale*) raised at the point of incidence: but as all these perpendiculars themselves diverge from before backwards, the luminous rays will also diverge, and will be scattered in place of giving distinct images. Now, if the sight be re-established after the displacement or the extraction of the crystalline, it is so because the vitreous body comes to be convex forwards, and to represent more or less exactly the convex lens no longer existing. But if, for some reason, the vitreous body in certain cases preserves after the operation for the cataract the concave form anteriorly that is peculiar to it, there will necessarily arise what has just been stated: there will be sensation of the light, without formation of distinct images.

This explanation is, as may be seen, very ingenious; but it would demand to be directly proved by the facts. Or, there is found in a rather ancient author the history of a dissection very well made, and which would tend to confirm at least the half of the theory of Professor Roux.

There is the case of a poor woman upon whom Maître Jean depressed two cataracts in the year 1691. The operation succeeded on both sides. Ten days afterwards she saw well enough *to fine hemp*. A month later she died of pneumonia. The dissection of the two eyes was made some hours after death, and the following is what is said by the author in reference to the vitreous body:—"I had the pleasure of seeing through the pupil that the crystalline was no longer in the place it ought to occupy, which is the middle of the anterior part of the vitreous body. That part of the vitreous body was elevated into a *very unequal lump, which imitated the anterior face of a crystalline*, except that it was not depressed; and when with a stylet I gently depressed it, it descended immediately after I had removed the stylet, and returned to its first form."

Nothing can be more precise than this description. It remains, however, to demonstrate that it is always the same with it when the operation is successfully performed, and that, in certain cases of non-success, that change of form does not occur.

in diameter; the left eye distinguished well the day from the night. On the right the pupil was very regular, very movable; the right eye, however, saw a little less than the left, and moreover, better in the evening than in the middle of the day. Extraction was practised upon both sides: no adhesion existed on the left side, notwithstanding the narrowness and the irregularity of the pupil. Unhappily the two eyes were destroyed by suppuration, so that it cannot be said whether the state of the left pupil coincided with a lesion of the functions of the retina. But at least it results from this last case and from the fourth, that the narrowness, the irregularity, and the immobility of the pupil may exist without the least adhesion of the iris to the crystalloid membrane, since the extraction of the crystalline has presented no difficulty.

To terminate what I have to say upon the symptoms, it remains for me to speak of the *aspect of the pupil* itself, or of the cataract before the operation.

SECT. VIII.—All cataracts have not the same appearances: nothing, on the contrary, is more varied, when they are examined very close at hand and carefully. The varieties turn upon the colour of the opacity, its more or less dull or brilliant aspect, the uniformity or non-uniformity of the tint. It is rather difficult to class under a small number of heads all these so different appearances, yet the thing is possible, in making allowance for a little arbitrariness, which cannot be avoided. Let us examine this subject. The aspect of 117 cataracts has been carefully described in 65 patients. The cataract of one of the eyes had an appearance sensibly different from that of the other eye in 3-5ths of the subjects having two of them. Those shades presented by these cataracts may be referred to the four following:—

1stly. *Grey*.—I understand thereby all the hues in which the grey predominated, without there being any tint of blue. This colour has been more frequent than all the others; it existed in 47.

2ndly. *White*.—Namely, white milky, opaline, a little yellowish, mother of pearl-like, &c., &c., but without bluish tint, 41.

3rdly. *Blueish*.—This class contains the greyish or white tints, with a very evident blueish hue, 22.

4thly. *Blackish*.—I do not mean to speak of black cataracts, properly so called; I have met with none of them, but only of cataracts of which the tint approached to a very deep grey or brown, 5.

Finally, two cataracts of an altogether peculiar aspect, and which occurred in a woman of 30 years of age, must be added to these cases. The ground of them appeared brownish, and in the centre of each pupil existed a small white spot, almost exactly square; it was a partial opacity of the anterior part of the crystalloid membrane. It

was necessary to take it away by means of small pincers on both sides after the extraction of the crystalline.

Besides the colour, another point important for consideration is the uniform or more or less spotted aspects of the cataracts: This last appearance is not rare, for in 26 of the 65 subjects of whom there has been question, it existed most frequently in one eye alone, seven times only on both sides. In all these cases there was perceived in the field of the pupil, either simple points more dull, or with a tint a little different from the rest, or else with ill defined, cloudy spots, or else with clouded spangles closely resembling morsels of mother of pearl; all that was defined in a very evident manner upon the very ground of the opacity of the crystalline. In one case, three gray radii, excessively slender, set out from the centre of a cataract of a uniform mother of pearl white, and extended towards the circumference, dividing thus the crystalline into three segments. This case enters, I believe, into the species of cataract described by Professor Jules Cloquet.

Great importance has been attached for a long time to the colour, and to the more or less uniform aspect of the cataract. Maître Jean speaks of them in reference to the prognosis: he gives the list of the good and bad colours; the inequality of the tint is for him a suspicious sign.

In the present day, it is scarcely any longer under this point of view that it is attended to; but some surgeons and oculists of a great name appear to believe that it can be recognized from the aspects, whether a cataract be capsular or lenticular, soft or hard. According to Beer and Travers*, in the membranous cataracts, the colour is always clear, *never uniform*, but of a *spotted*, or *mottled* appearance. According to Beer, the colour of the caseous cataracts is never uniform; they are always more or less spotted; the spots resemble fragments of mother of pearl. It is true that Travers is upon this point of a quite opposite opinion: he thinks that the caseiform cataract is uniformly opaque.

It would, indeed, be very advantageous to know before hand with what species of cataract one may have to do, and particularly to know whether it may or may not be membranous; for it is not without increasing the chances of evacuation of the vitreous body, to attempt to withdraw from the eye an opaque capsule when the extraction has been practised. Unhappily, and in spite of the authority of the able men whom I have quoted above, the diagnosis is most frequently impossible, at least in taking as a basis the characters indicated by them; this is what I reserve myself for proving farther on. But, before examining this question, there is another very important one, which

should find a place here, because it is intimately connected with the first.

Are capsular cataracts frequent?

Several authors, who have written upon diseases of the eyes, have not even entered upon this subject; others have not hesitated to say, that the anterior capsular cataract is by no means rare. (S. Cooper.) According to Tenon, facts and reasoning prove that it is not rare to see cataract depending upon opacity of the capsules. It is true that a little farther on he contents himself with saying that cataracts reside sometimes in the membrane enveloping the crystalline. Professor Dupuytren goes farther.

There may be read, in the *Répertoire Général d'Anat. et Phys.*, tom. 3, *deuxième trimestre*, a very interesting article upon the operations for cataract practised at the Hôtel Dieu; an article in which the author makes M. Dupuytren say that the membranous cataract is to the ordinary cataract (that is to say the crystalline), in the ratio of 1:1½; and this assertion has been reproduced in the *oral lectures* of Professor Dupuytren.

I confess I can hardly believe that some error has not glided into the impression or into the composition. Indeed, in studying the table of 207 persons affected with cataract, who had presented themselves at the Hôtel Dieu from 1815 to 1821, and on whom 264 operations had been practised, (the extraction not having been so more than eight times), these words, *membranous cataract*, are found opposite to each of the cases, in which apparently this species of cataract had been diagnosed. Or, how many times is there question of membranous cataract? 15 times only in 264, which gives the ratio of 1:16 3-5ths.; in place of the ratio of 1:1½.

The difference is great, as is manifest.

Where is the error? does it consist in the omission of a great number of membranous cataracts that have not been indicated in the table of which I have just spoken? May it be, on the contrary, in the ratio of 1 to 1½, which the author of the article attributes to Professor Dupuytren? There is the difficulty; I shall endeavour to resolve it by examining another series of facts.

It is permitted, in many cases, to retain doubts upon the capsular or lenticular nature of a cataract, when it is operated on by depression, or breaking up; it is not the same, at least most frequently, when the extraction is practised. This is the very touchstone of the diagnosis; indeed, after the removal of the crystalline and of its accompaniments, either the pupil remains black, or it remains of a more or less opaque white. In this last case there can be no doubt upon the non-transparency, total, or partial, of the anterior part of the crystalloid; for it is then obliged to be removed either by means of small pincers, or with the cataract needle. Or, in the 121 subjects operated on at la Charité, the extraction has been practised

* S. Cooper, Dictionary of Surgery.

169 times; and in this number, five times only was the crystalline capsule evidently opaque, which will give 1:34 4-5ths, in place of 1:1½, as the ratio of membranous to crystalline cataracts.

I have said *evidently opaque*; indeed, there is a certain number of cases in which the pupil did not rest very clear after the extraction of the crystalline, either on account of the cataract spoon not having been introduced to remove some fragments of the cataract, or because, indeed, there has been in some cases a commencing opacity of the capsule, and that the latter has not been detached. These cases are six in number; and I observe that I only mean to speak here of those in which the operation did not succeed; for it is altogether evident that I ought not to have considered as capable of being cases of capsular cataracts, those in which there remained in the field of the pupil, immediately after the operation, a slight trouble, which was subsequently dissipated completely by the absorption of the fragments of the cataract to which it had been owing. Thus, then, even in admitting as demonstrated, what is far from being so, that the six cases of which I have just spoken, were all cases of membranous cataract, there will be a total of 11 in 169, which will give the ratio of 1:15 4-11ths—still very remote from the ratio of 1 to 1½.

What is to be concluded from that? That it is extremely probable that it is but an error of composition or of impression, which has been made to be stated by the illustrious surgeon of the Hôtel Dieu in the article of the *Répertoire* that I have pointed out, than subsequently in his oral lectures, that the membranous cataract is to the crystalline cataract in the ratio of 1:1½. It is evidently much rarer.

There is scarcely need now of returning to the diagnosis of capsular cataracts; it suffices to call to mind that there were but five, which were evidently of this last kind, while in 33 cases the cataracts presented a spotted or mottled aspect, in order to see how little confidence ought to be placed in this sign, which, according to Beer and Travers, is calculated to make them recognizable.

The following, however, is what was in these five cases, the appearance of the cataract before the operation:—

1st. In an unmarried woman of 26 years of age, the pupil was of a very pure white, *not spotted*; after the extraction, the same tint persisted, the anterior crystalloid membrane was removed by means of the needle, and immediately afterwards, the pupillary aperture became perfectly black.

2nd. In a man of 65 years of age, the cataract of the left side was of a beautiful shining white, with spots that appeared still whiter; after the extraction, there remained in the field of the pupil a demi-opaque pellicle, which was removed by the needle.

3rd. In a man of 60 years of age, the two

cataracts had a uniform bluish tint, with some very fine black striae, irregularly placed on their circumference, and apparently due to a deposit of the pigmentum; after the removal of the crystalline on the right side, the pupil remained very clear, with the exception of a small white point which remained at its superior part, and was not taken away: forty days afterwards, the patient quitted the hospital; the pupil was clear, the same white point persisted as on the first day.

4th. The fourth case is that of the woman who has already been mentioned, and who had at the centre of each pupil a small square, white, very remarkable spot, situated upon a brownish ground. It is manifest, saving in this last case, that the opacity of the capsule has by no means presented a peculiar and characteristic appearance.

Duration.—Before passing to what refers to the operation itself, it remains for me to speak of the formation of the cataract in relation to the time that elapses between the first moment in which the patient perceives the weakening of his sight and that at which he ceases to see sufficiently for guiding himself. This is a rather difficult, or in fact rather a long, subject of research. Indeed, it must be renounced, obtaining indications on this subject from a good number of patients, so little attentive to what happens to them, that they cannot fix, in a manner at all precise, the epoch at which they have for the first time remarked that their sight commenced to decline; sometimes even that at which they have ceased to be able to guide themselves. But it is not the same with all: several remember very well all the epochs; they indicate the month, the circumstance in which they have made these primary remarks; they follow with anxiety the progress of their disease, and mention for each eye in particular the time elapsed between the period of the commencement and that in which the faculty of seeing has been abolished. It is of results furnished by this last class of patients, unhappily too few in number, that we are about to speak.

In 47 subjects it has been possible to determine the time elapsed from the appreciable commencement of the first cataract to the moment in which the patients have ceased to be able to guide themselves. Or, the mean term has been of about five years, one month, and four days.

But by separating what refers to the men (who are 25 in number) from what relates to the women (who are 22 in number), the mean is found to be for the first, four years, two months, twenty-three days, nearly; and for the women, six years, one month, all but a few days.

It is true, that among these last there were two whose disease had marched with so much slowness (14 and 31 years), and who presented two cases so exceptional, that by themselves alone they much augmented

the mean number. Yet, on withdrawing these two women, the mean is maintained for this sex at four years, five months, twenty days, nearly; that is to say, three months more than for the men.

The following is the manner in which these durations of diseases was distributed*.

Men.—Two men, in whom from the commencement to the complete loss of sight, there has elapsed less than a year.

16 . . . from 1 to 5 years

7 . . . from 5 to 10.

Women.

0 below 1 year duration.

13 from 1 to 5 years.

7 from 5 to 10 years.

2 from 10 to 31 years.

Let us see whether the progress of the disease has been equally long for the first and the second eye affected.

Thirty-six patients have been able to indicate how much time the first eye affected with cataract had taken in being lost. The mean number expressive of this time is, two years five months ten days nearly. But by separating what concerns the nine-

* There is a precaution to be taken in seeking the mean terms; namely, to indicate, when that can be done, into how many principal groups are arranged the objects on which we work. Without that, indeed, there is risk of obtaining, not false results, for a numerical result is always true, absolutely speaking, when the data set out from are true, and when no error has been committed in operating upon the numbers; but results, which by no means represent all that we desire to know. An example will render my idea comprehensible. I suppose this very general question: to determine the mean age at which cerebral affections are developed. If it be true that it is at the two extremes of life that these diseases are principally met with, it will necessarily happen, on assembling a certain number of cases, that there will be two groups, the one of infants, the other of old men. If, now, their different ages be added together, and the sum be divided by the number of individuals, there will be a risk of obtaining a mean number (30 years, for instance), very exact, assuredly, but which would teach absolutely nothing; which even, in certain respects, would lead into error, since it would represent an age in which precisely few cerebral affections are met with, in place of representing that, near which the most are developed. It is conceivable that in this case an explanation of two lines will suffice, and the seeking of two means in place of one will suffice for obviating this inconvenience and obtaining precisely what is sought for. Likewise that is a difficulty which cannot constitute an objection against the excellence of numbers; the only question is, of employing them well, as in fact for the best things in this world.

teen men and the seventeen women, the mean becomes 1 year 7½ months for the first; 2 years 7 days for the second. (I lay aside, moreover, from this calculation the two women, of whom there has been question above.)

The following is the manner in which these different durations have been grouped:

Eye lost almost suddenly . . . 1 subject.

— in some days . . . 2

— between from 3 months to

1 year . . . 17

— between from 1 to 5 years 14

— — — — — 8 to 25 years 2

The following are the analogous results furnished by forty-five patients upon the duration of the progress of the disease for the second eye affected. The mean cypher of this duration is, 1 year 8½ months; and by separating what concerns the men and the women, there is for 24 men 1 year 4½ months; and for the 21 women, 2 years 14 days.

By uniting together the two sexes, it is found that the second eye has been lost between

1 to 8 days . . . in 2 subjects.

1 month to 1 year . . — 23

1 year to 5 years . . — 17

5 years to 9 years . . — 3

These cyphers are too small to enable us to seek for the influence that age may have had upon the progress more or less rapid of cataract, but they indicate relatively to the sex a rather remarkable difference, to which I shall soon recur.

It results from these mean terms, that the two eyes are not generally lost with an equal quickness; and that it is particularly the first affected of which the decline marches with the greatest slowness. It is not always thus with it. Indeed, in thirty-two persons affected with cataract, there are two of whom the eyes have taken an equal time for being entirely lost; twenty-one in whom this time has been longer for the first eye affected than for the second; nine in whom the reverse has occurred; and in these thirty last subjects the difference has been such between one eye and the other, that it is a mean term of two years one month twelve days nearly. It must be remarked that the mean term (five years one month four days), which indicates the total duration of the disease until complete maturity of the two cataracts, is superior to the sum of the means representing the time that each cataract has taken to arrive at maturity; this sum, indeed, would only be four years two months nearly. That comes from the fact that in a certain number of individuals there elapses a more or less long interval between the moment in which the first cataract is complete and that at which the second commences.

The following is what has occurred in thirty-two patients (eighteen men, fourteen women), in whom cataracts have not commenced at the same time. In the eighteen

men there have been found thirteen of them, who, having an eye already completely affected with cataract, have preserved the second eye perfectly healthy during a time in general rather long. Thus, two only in these thirteen have preserved it less than one year; the other eleven have preserved it one, two, four, five, and even seven years. In the last five the second eye has been affected before the complete loss of the first.

For what concerns the women, it has been otherwise. In the 14, 5 have preserved their second eye untouched during four to six months after the loss of the first; two only have preserved it 12 and 18 months. In the other 7, the second eye has been affected before the maturity of the first cataract.—
To sum up:—

1st. Abstraction made of the sex, the mean duration of the disease, in reckoning it from the appreciable commencement to the moment in which the patients have ceased to be able to guide themselves, has been five years, one month, four days.

2nd. Thirty times in 32 cases the cataract of one side has taken for arriving at complete maturity, a time different from that taken by the other cataract for arriving at the same point; and 21 times in 30 the first eye affected has been that of which the disease has marched the most slowly.

3rd. The mean duration of the complete formation of the disease has been, for the first eye affected, 2 years, $5\frac{1}{2}$ months; for the second, 1 year, $8\frac{1}{2}$ months.

In regard to the sex:—

4th. The total duration of the malady has been longer in the women than in the men*.

5th. That longer duration is met with again in the women, on examining the progress of each cataract singly.

6th. Thirteen men in 18, and only 7 women in 14 have preserved the second eye perfectly healthy for a time more or less long after the loss of the first; and in the men this time has been generally much longer than in the women. We shall see these last having still the disadvantage in reference to the prognosis.

These different results appear to me sufficiently interesting to induce new researches. I am far from wishing to attach to them more importance than they merit; I know that the numbers on which they are based are too inconsiderable to enable their value to be absolutely depended on; I do not hide from myself that in spite of all the care I have been able to give to the search

after exact indications, it is possible that some errors may have glided into the dates which, of little importance if the cyphers had been elevated, might be of much on account of the opposite circumstance; but I persist in thinking that this subject, forming directly part of the history of cataract, and having been, to my knowledge at least, but little studied, deserves to be so again, and that carefully. It is for future observations to confirm or destroy the first data.

—o—

THE BARKS EMPLOYED IN INTERMITTENT FEVER.

THE barks which are employed for the cure of intermittent fever are the different species of cinchona and their preparations, salix, carapa, swietana febrifuga, melea azedarach. As the history of cinchona is not fully given in any of our dispensaries, I shall take the liberty of attempting it on the present occasion, more especially as it contains some interesting historical facts.

It is now more than three centuries since the Peruvians accidentally discovered the use of cinchona, by observing some animals affected with intermittents instinctively led to it; but others say, by a Peruvian affected with ague having drunk from a pool into which cinchona-trees had fallen, and thereby having obtained a cure of his malady. It is also on record that its efficacy in the cure of gangrene was discovered by an aguish patient labouring under that disease having been cured. Professor Duncan asserts, however, that the natives of Loxa, who are the reputed discoverers of this medicine, would rather die than take cinchona, which they class with opiates, among the poisons causing gangrene. From the febrifuge properties of cinchona, it was called *palo de calenturas*, or *fever tree*, by the Spaniards. The exact period at which it was discovered is unknown, but is said to be about the year 1500. It was not known to Europeans until 1640, after it performed a signal cure on the lady of the Spanish viceroy, the Countess del Cinchona, at Lima, and, on her return to Europe, it soon came into use. This occurrence gave rise to the synonyms for cinchona: *cortex vel pulvis comitessæ*, &c., *cortex china*, *chinchina*, *chinchona*, *kina kina*, *kin-kina*, *quina quina*, and *quinquina*. But according to the authority of Don Joseph Villerbel, a Spanish physician quoted by Badus, the Peruvian bark was first brought into Spain in 1632, and thence it passed in other parts of Europe. At first it was improperly used, and consequently failed in many cases, an occurrence that excited the hostility of the faculty to such a degree, that the medicine would have fallen into disuse, had not the Jesuits imported it in large quantities from their brethren in South America.

* This result is found moreover confirmed, if in the 8 subjects in whom the two cataracts have commenced at the same time, we compare men with women. Indeed, the mean duration of their formation has been 3 years, 4 months and a half for the five men; 4 years, 1 month and a half for the three women.

In 1649 a Jesuit brought a quantity of it into Italy, which was sold at a high price, and was so lauded, that it soon found its way into all parts of Europe. Cardinal de Lugo, of Rome, purchased some of it for the poor; and on account of this, and the general patronage of his brethren, it was now denominated *cortex vel pulvis jesuiticus*, *pulvis patrum*, *pulvis cardanalis* de Lugo—Jesuits' bark.

Through the same influence it was deemed innocuous and salutary, while it was strongly recommended, in 1661, by Pope Innocent X., who ordered his physician to draw up the *Schedula Romana*, which indicated the dose and proper time for taking it. In this schedule it was advised at the commencement of the cold fit of ague—the worst time that could be selected, and hence its failures were so common, that it became generally considered useless. This led some to exhibit it in excessive doses, and, as death sometimes happened, the bark was denounced as a dangerous, if not a poisonous remedy.

A remarkable case occurred while this unfavourable impression was prevalent, which contributed very materially to increase the doubts of its value; and that was in the instance of Archduke Leopold of Austria, to whom it was administered with temporary benefit only, and fell into discredit with the faculty throughout the continent of Europe.

In the year 1655 cinchona was introduced into this country, and was at first considered a doubtful and a dangerous remedy. In 1658 it was given to Mr. Underwood, an alderman of the city of London, who died while using it, and his death was ascribed to it. This impression was so general among the physicians of the period, that Cromwell, who laboured under intermittent at the time, was suffered to languish and die of his disease, without a trial of the bark, his medical attendants being afraid to employ it. Morton, who makes this statement, observes, "*nondum vires corticis in hoc veneno subijendo, saltem hic loci comprobatæ erant.*" (*Pyretologia*, 1692.) Dr. Prejeau, who was President of the Royal College, and contemporary of the illustrious Harvey, advocated its employment, according to Sir George Baker, (*Med. Trans.* vol. iii), as also did Dr. Brady, Professor of Medicine in the University of Cambridge, and Dr. Willis. Dr. Morton was not experienced in its use, and Dr. Sydenham was at first its opponent; but with that candour and judgment which distinguished him, he determined to watch its effects, and to form his opinion after the results of repeated experience. He was soon convinced that in many cases it was efficacious, in others highly serviceable; and that in those in which it had failed it was either injudiciously administered or it was adulterated. It was usually given during the paroxysm, until subsequent experience proved it should only

be used in the apyrexial period, or in other words, after the fits had terminated. It appears by the account of the classic Mason Good, that it was very difficult to procure it in any quantity, and, therefore, that it was probable that it was considerably adulterated. He states on the authority of Sturmius, who warmly patronized its use, that pure bark was so scarce on the continent, that twenty doses of the powder were sold at Brussels in 1658 for sixty florins, for the purpose of being sent to Paris; and that this order so completely exhausted the apothecary's stock, that he himself was incapable of obtaining any even at that price; and that for the use of an aguish patient, who was attacked in the month of February, he was obliged to wait to the following June before he could obtain a supply. (*Febrifugi Peruviani Vindictiarum pars Prior*, Antwerp, 1659.) Bartholine of Copenhagen having received a present of three doses or six drachms of the powder from some friends, who had brought it from Italy, was induced to try it upon a lady who had a quartan fever. The first dose was rejected from the stomach; and, in order to prevent a repetition of this accident, and consequently the loss of his entire stock, he macerated his two remaining doses in wine for forty hours, and gave the infusion during two successive paroxysms. The only effect was, that the fever was changed from a double to a single quartan; and here he was obliged to stop, having no more of the medicine. (Thomæ Bartholini *Hist. Anat. et Med. Cent. v. Hist. l. Haffniæ*, 1661.) But, even in 1678, Morton complains that the bark offered for sale was become so inert, corrupt, and adulterated, that it was necessary to increase the dose from two drachms to one, two, or three ounces; and under such circumstances we cannot wonder that the medicine disordered the digestive organs.

In order to guard against all objections raised against the bark, Sydenham proposed to himself the following regulations for its use:—

1. To be cautious in the quality of it he employed; and to allow no intermixture, from fraud, or a view of increasing its virtues.

2. To administer the bark in the intervals, instead of in the paroxysms of the fever.

3. To give it at the rate of two scruples every four hours, instead of two drachms twice a-day, after the *Schedula Romana*.

Under these regulations the bark acquired all the success which has at any time been ascribed to it; and the most important point in these regulations was that which effected a change in the period of exhibiting the remedy. Sydenham made this valuable change after repeated consideration and observation. He says, "*Dirè multumque apud se agelat.*" yet Morton, who published his *Pyretologia* in 1692, only three years after the death of Sydenham, alleges

that he had given the bark to persons of all ages, at every season of the year, cured every species of intermittent quickly and radically, and had found it more useful in the intervals than in the fits. But Lister, who was a contemporary of Sydenham and Morton, and who treats neither of them with respect, accuses the former, a few years after his death, of having copied his mode of giving the bark from the miserable mountebank Talbor, who was its inventor;—"auctore suo, misero ille agyratâ Talbor."—(M. Lister Octo Exercitationes Medicinales de Cort. Peruv. exhibendi tempore.) Talbor was not an empiric: he had served his apprenticeship to an apothecary at Cambridge, and acquired more fame for his mode of exhibiting the bark than any one of his contemporaries. He was appointed one of the physicians to Charles II., against the influence of the College; was specially sent for to Paris to attend the Dauphin; succeeded in curing him, and afterwards revealed his arcanum for a stipulated sum to Louis XIV., which was found to be an infusion of the powder of bark in port wine, as a cordial.

It is right to mention, that from 1638 to 1776 no other cinchona was supplied in commerce, except that of Loxa and its vicinity. The late erudite Professor Duncan informs us, that "La Condamine mentions the cinchona of Riobamba and Cuenca, in the province of Quito, as well as that of Ayavaca and Jean de Bracamorros. In 1753, Don Miguel de Santisteban, in travelling from Loxa to Santa Fé de Bogota, observed that everywhere in the same elevation with Loxa there were cinchona trees. From him, in 1761, Mutis received the first specimen of the *c. cordifolia*. Mutis, in 1772, found cinchona near Santa Fé, and sent it to Europe from Carthagena. Till then all the cinchona was gathered in the woods of Loxa, Ayavaca, and Jean de Bracamorros, and shipped, under the name of *Cascarilla fina de Uritasinga*, at Payta, to double Cape Horn. In 1776, Don F. Renquifo discovered *c. nitida* of Ruiz at Huanuco. Ruiz and Pavon, authors of the *Flora Peruviana*, examined in the vallies of the tributaries of the Amazon river, and almost at the same time cinchona was found in the northern and southern extremities of South America, in the mountains of Santa Martha, and in the kingdom of Buenos Ayres at La Praz and Cochabamba. Since 1780, Europe has received cinchona, of different value, from Payta, Guayaquil, Lima, Buenos Ayres, Carthagena, and Santa Martha."

Dr. Paris observes, in his Pharmacologia, that "notwithstanding the labours of the Spanish botanists, the history of the genus (cinchona), is still involved in considerable perplexity; and owing to the mixture of the barks of the several species, and their importation into Europe under the common name, it is extremely difficult to reconcile

the contradictory opinions which exist upon the subject." There are no less than twenty-five distinct species of cinchona, according to this able and learned writer, independent of any additions which we owe to the zeal of Humboldt and Bonpland; while Professor Thomson, of the London University, states, that in a large collection of dried specimens of the genus cinchona, in his possession, collected, in 1805, both near Loxa and Santa Fé, he finds many species which are not mentioned by any Spanish botanist. Professor Duncan states, that, according to the authority of M. Von Bergen, a drug broker at Hamburg, there are eight commercial species of cinchona bark, and these are described at length in the Edinburgh Dispensatory, twelfth edit., 1830.

Three kinds of cinchona bark are mostly used in this country:—

1. *Cinchonæ lancifoliæ cortex*. l. e. cortex Peruvianus, d. lance-leaved cinchona-bark, common quilled bark, *pale* bark.

2. *Cinchonæ cordifoliæ cortex*. l. e. cortex Peruvianus, d. Heart-leaved cinchona bark, commonly called *yellow* bark.

3. *Cinchonæ oblongifoliæ*, l. e. cortex Peruvianus. d. Oblong-leaved cinchona bark, *red* bark.

In consequence of the great demand there is for cinchona, it is so generally adulterated that it is almost impossible to obtain a genuine specimen, more especially of powdered bark. Hence its frequent failures, and cause of its depreciation in the minds of the faculty. Various other barks are constantly mixed with it, and in some cases the virtues are extracted from good bark by decoction, and the useless residue is mixed with a portion of the genuine article, and supplied in this state in commerce. There is a minute description of the distinctive characters of cinchona in all our Dispensatories, which need not be detailed at present, being well known to members of the medical profession, and of little interest to those fellows who do not belong to that faculty. The distinctive characters of good cinchona are its density, weight, and dryness, and that a decoction made of it has a reddish colour when warm, becomes paler on cooling, and deposits a reddish sediment. "Those pieces," says Dr. Duncan, "whose taste is simply intensely bitter, or very astringent, or nauseous, or merely mucilaginous, whose surface is smooth or polished, or a dark colour, pale, yellow, or red, which are tough or spongy, whose fracture is fibrous, woody, or powdery, and their internal colour white, or grey, are to be rejected. It is still more difficult to know genuine cinchona bark in the form of powder."

The cinchona bark has been repeatedly subjected to chemical analysis by some of the first chemists, but until the year 1821, its constituents were not accurately determined. Yellow bark contains, according to Vauquelin,

a peculiar acid, which he calls kinic acid, and which Dr. Duncan has denominated cinchonic acid, and contains the largest quantity of quinine. Red bark contains both cinchonine, first discovered by Dr. Duncan, and quinine in large proportions. The yellow bark ought therefore to be preferred, and next to it the red and grey sorts. There are various other principles in the cinchona bark, according to Pelletier and Caventon, which are detailed in all our modern works on *materia medica*.

Medical Use.—Dose and Mode of Administration.—Cinchona acts upon the living fibre as a powerful tonic, stimulant, and antispasmodic; on dead animal matter, as an antiseptic. *It was long considered as a specific for intermittent fevers; but it sometimes fails to produce its beneficial effects. It is very much employed in the last stage of continued and eruptive fevers when typhoid symptoms appear, and great prostration of the vital powers are present. Accordingly, it is much praised in typhus, confluent small pox, yellow fever, scarlatina maligna, cynauche maligna, gangrene, and mortification; in acute rheumatism, certain forms of dysentery, scrofula, ill-conditioned ulcers, rickets, in dyspepsia, hypochondriasis, and during convalescence after various inflammations. It is exhibited in powder, infusion, decoction, tincture, wine, and extract, and recently combined with sulphuric acid in the form of quinine. It is likewise applied in the form of powder to ill-conditioned, carious, or gangrenous ulcers, and is used in gargles and enemata, and when the stomach is irritable, the sulphate of quinine has been applied to a blistered surface with success.

It is said by some writers that the best form of administering cinchona is in the state of fine powder; the dose varying from ten grains to two drachms, diffused in wine, water, or milk, or made into an electuary with honey or currant jelly. But it sometimes causes vomiting when exhibited in whey, and in such cases either the dose must be diminished, or some other form must be preferred. In such cases the infusion, decoction, or tincture, will be substituted for the powder with advantage. But the infusion does not contain so large a proportion of the active principles of the medicine as the powder, and is very liable to become decomposed and spoiled after a very short time. The decoction is also an objectionable preparation, while the great power of the menstruum in the tincture prevents us exhibiting the bark in sufficiently large doses to ensure its efficacy. A vinous infusion is sometimes employed, and very often the bark is only mixed with the wine, but this is an unpleasant form to exhibit it. The extract was long considered one of the best preparations, but it is now generally admitted that the active properties of cinchona are destroyed in making this formula.

Since the discovery of the active principle of cinchona, and its preparation as an alkali neutralized by sulphuric acid, and forming the sulphate of quinine, we can now exhibit this valuable remedy in a much less objectionable form than any which had been previously in use. One grain of the sulphate of quinine is said to be equal to a drachm of powdered bark. The dose is from two to twenty grains; though half a drachm has been given in twenty-four hours. Dr. Perrine, of Adam's county, in America, exhibited eight grains every six hours; and Professor Speranza, of Italy, gave it in doses of 12, 24, and 30 grains, and in one case, 108 grains as a dose, before the fever was arrested. This immense quantity, equal to 13½ ounces of cinchona, could not, I apprehend, be given with safety, had the medicine been genuine, as very violent effects are frequently observed when this remedy is pushed too far. In this country, in which intermittents are much more tractable than in Italy, the majority of the profession find that doses of one, two, or three grains of quinine, administered every six hours, effect a speedy cure. Professor Cooper informs us, in his valuable edition of Good's Study of Medicine, that every case of ague he treated in the King's Bench and Fleet prisons, yielded to doses of two grains. Professor Graves is also a strong advocate for small doses of this and other tonics, as appears by the Dublin Journal of Medical and Chemical Science for May last. Professor Elliotson has found quinine succeed when free doses of bark had failed. He states that he tried it in 150 cases of ague, many of which were combined with so much inflammation of the head, chest, and abdomen, as to require venesection, others with dropsy and chronic disease of the lungs or liver; but *every one was cured*. He never knew quinine increase inflammation or interfere with antiphlogistic measures; he has invariably given it under all circumstances, and adopted it with any other measures required by the symptoms. He has found five grains every four hours generally successful. He is of opinion, that it is the best practice to exhibit ten grains after the paroxysm is over, which, except in quartans, prevent the next paroxysm; and, if repeated daily at the same hour, often cure the disease. But in some cases it is necessary to administer small doses of the medicine every six or eight hours, so as to push the remedy to 20 or 30 grains in twenty-four hours (*Med. Chir. Trans.* vol. xiii). Many other physicians disapprove of such large doses, more especially should inflammation be present in the head, chest, or abdomen; and repeated experience has convinced me of the value of this statement. I fully agree with Dr. Graves, of Dublin, that excessive doses of quinine or carbonate of iron are in general unnecessary.

There are other vegetable alkalies, as

salicine, piperine and ilicine, of great value in the cure of intermittents. MM. Robiquet and Petroz have discovered an alkali analogous to quinine in the bark of carapa, which had cured agues in America that defied the power of cinchona. (Quarterly Journal of Foreign Medicine, vol. iv.) Another French writer, M. de Martin, has mixed quinine, formerly pulverized with cerate, then applied to a blistered surface, from which it was speedily absorbed, and cured ague, (Rev. Med. Sept. 1827)—a fact worthy of recollection in all cases in which the stomach is irritable.

The other barks used for the cure of intermittents are suritenia febrifugia, the melia, azedarach or bead-tea, and the tellicherry bark. These are far inferior to cinchona, though much praised in India. Various other remedies are employed for the cure of intermittents; but those I cannot consider on the present occasion.

—o—

THE CONNEXION OF PHYSIOLOGY AND PATHOLOGY.

A Paper read before the Medical Society of the London University.

(Concluded from page 783).

THE next subject I have selected for consideration, is the pathology of congenital malformations, because that subject is so peculiarly interesting in itself, and serves so admirably to demonstrate the dependence of pathology on physiology.

Congenital Malformations.—Deviations from the natural arrangement and distribution of the elementary particles of the tissues, produce the various species of congenital malformations usually called monstrosities. Alterations in their number, which are the causes of several malformations, may arise from hypertrophy or atrophy.

Setting aside the superstitious ideas and absurd prejudices which accompany the history of monstrous formations, which was almost wholly composed of an incoherent assemblage of marvellous tales and inaccurate descriptions, it is to modern anatomists that we are indebted for the greatest advances in this department of medical science, especially to Littré, Geoffroy St. Hilaire, Soemmering, and a few besides. Littré conceived, and the others have adopted, the idea of regarding a certain number of monstrosities as the result of an arrest or suspension of the progress of the development of the organs of the foetus.

Vicious conformations usually make their appearance at birth—they generally occur in the mother's womb, before the individual is perfectly formed. And here we can trace some analogy between this pathological condition in the human foetus and the normal physiological condition of those animals which occupy a much lower rank

in the scale of organization; for, in the lower classes of animals, such as zoophytes, the conformation of their organs is not so absolutely determined by fixed laws, but that it may be modified and changed under the influence of certain causes which influence their nutrition. But in those animals this condition obtains at all periods of their existence, whereas, in man, it is almost exclusively confined to the period of his foetal life.

The conformation of a foetus found deformed at its birth, may have proceeded regularly during the earlier periods of its evolution, and have been subsequently modified by some derangement or defect in its development. And the development of the foetus may be modified in various ways: sometimes the formative process, or *nus formativus*, as it has been termed, possesses less energy than natural, and the development of the organs is in consequence suppressed, in which case they are found either imperfectly formed or altogether deficient: sometimes, on the other hand, this force seems to acquire an excess of energy, and then there is a corresponding excess of development, and the organs exceed their natural limits either in size or number. In other cases, again, the development cannot be properly said to be either excessive or defective, but the formative process appears to have been simply perverted, thus producing various modifications in the general transposition of the viscera, and in certain varieties in the origin of the principal arteries.

To these three classes every species of monstrous formation may be referred. Meckel supposes that these species form series, rising by regular gradations from the natural form to the most unnatural deformity. M. St. Hilaire is rather disposed to consider each individual monster as constituting in itself a distinct species.

Whatever be the nature and number of these malformations, the *implicit obedience to certain laws* which nature constantly observes in the midst of these apparent anomalies, is very remarkable. Thus the situation of the organs has never been so perverted that the lungs were placed in the skull, or the brain in the pelvis; nor have the organs been observed so confounded together as that the alimentary canal, for instance, made a continuous tube with the aorta, &c. All which would no doubt occur if certain laws did not still preside over this state of apparent disorder and confusion. Another illustration of the existence of these laws is, that man and the higher orders of animals may present such an arrest in their development, that several of their organs shall represent exactly the natural state of these parts in the inferior animals; whereas the latter can never attain such a degree of development as that their organs shall resemble the corresponding parts of the higher orders. Thus, for example, the human brain, arrested in

its evolution, may present an appearance more or less exactly analogous to the brain of fishes or reptiles, but the simple brain of these animals can never attain the degree of complicated structure which the human brain presents.

When several malformations exist in the same individual, they are not, in general, referable to the same class. Several of them result from the law so ingeniously conceived by M. St. Hilaire, which establishes that the exuberance of nutrition in one organ involves, to a greater or less extent, the total or partial atrophy of some other organ, and vice versa. Innumerable applications may be made of this law of compensation, as it is termed, to the study of monstrosities. Thus, in several individuals who have on one hand or foot supernumerary fingers or toes, the hand or foot of the opposite side has fewer than ordinary. Thus, in a fœtus with umbilical hernia, the left foot had only one toe, but the right foot had eight, and the eighth was divided (Neumann). In another fœtus, which had but one foot, the left hand had two thumbs (Sue). M. Légalas presented to the Academy of Medicine a fœtus which had no thumb on the left hand, but two thumbs on the right. This same fœtus had likewise only eleven ribs on one side, but had thirteen on the other.

It may be laid down as a general law, that those organs are most subject to imperfect development which are latest in attaining their complete evolution. Thus the intestinal canal is one of the first organs of which any trace is perceptible; at first it is only a continuation of the vesicula umbilicalis, which gradually elongates itself, into two tubes, one, inferior, constituting the large intestine, the other superior, forming the small intestine and stomach. Now, in all the monsters hitherto examined, the primitive portion of the intestinal tube has been found perfect, whilst, on the other hand, those parts which are subsequently developed have repeatedly been found deficient. The same law applies to all the other organs of the body.

There are several malformations, differing widely from each other, and apparently presenting the greatest discrepancies in their specific characters, which may nevertheless be traced to one common source—imperfect development. Amongst these malformations may be enumerated the different accidental openings and separations of parts, which, in the natural state, are united and closed. These solutions of continuity are all situated in the median line, and proceed from an arrest of development. There is, in fact, a period in the evolution of the fœtus, when almost every organ is composed of two parts, separated by an interval, which subsequently diminishes and fills up as the fœtus approaches the full term of gestation. The gradual obliteration of this intervening space pro-

ceeds from the fulfilment of a law demonstrated by M. Serres. viz. that all the parts of the body are formed from the circumference towards the centre. Hence it follows, that if the evolution of an organ be arrested at any time near the period of its first formation, the organ will be composed in general of two parts. To this cause must be referred those cases which present a greater or less extent of deficiency in the parietes of the cranium, as at the sutures, the various degrees of separation of the spinal canal, from the simple division of a spinous process, to a perfect cleft in the very body of the vertebræ—the absence of the liver, alba, hare-lip, and so on.

In all these unnatural formations, the same laws are observed as preside over the natural development of parts; and every imperfection of development an organ presents corresponds exactly with the state of that organ in some of its stages of development. If we next turn our attention to the accidental apertures and communications which many of the internal organs occasionally present, we shall find that they also are referable to an arrest in the development of these organs: thus, the unnatural communications between the cavities of the heart, which have been observed after birth, are the natural state of the parts at certain periods of the evolution of the fœtus. In the female the genital, urinary, and digestive organs have often been found communicating and uniting into a sort of common reservoir, previously to their opening externally; and if we follow these organs through the different stages of their development, we arrive at a period when this triple communication was the natural conformation of parts.

Many displacements are likewise evidently the result of an arrest of development: thus, the presence of the testicles in the abdomen; the situation of the kidneys in front of the vertebræ; the immediate attachment of the hands to the scapula, or of the feet to the ossa coxarum, are, in the adult, so many displacements, but were the natural situations of those parts at a certain period of foetal life. Again, during the first months of foetal life several organs, which subsequently incline to the right or left side, occupy a perpendicular position in the median line. Thus the heart, instead of the oblique direction which it afterwards assumes, is parallel to the axis of the body; so likewise the stomach, and indeed the whole intestinal tube, which at first consists of a simple canal, extending in a straight line from the stomach to the anus; these peculiarities of structure may continue after birth, and are then evidently the result of imperfect development.

Lastly, to this cause also may be traced even the congenital anomalies of colour which different individuals present. Thus the black pigment of the choroid does not make its appearance in the fœtus until the

fifth month after pregnancy; and if at that period its formation does not proceed, the choroid will appear red after birth, as in the case of Albinos.

If the interpretation given to the facts adduced be correct, we must adopt the general conclusion that the greater number of monstrous formations may be referred to vices of development, and consequently do not require for their explanation any hypothesis of previous disease having affected the fœtus. If monstrosities be the result of a fault of development, we must look to the *causes* of that fault of development, in order to ascertain by what physiological laws it is determined, and thereby trace the dependence of this part of pathology on physiology.

Now, it would seem that external mechanical causes, which exert an influence on the quantity and quality of the nutriment the fœtus receives, do possess the power of preventing the regular development of the fœtal organs, a fact which has been proved by direct experiment; for M. St. Hilaire produced certain malformations by artificially modifying the condition of the embryo at different periods of its existence. He caused several eggs to be hatched, some of which had been previously varnished in different parts, and others enveloped wholly or partially in gold-beaters' skin, while others again had had their shells perforated by various means. At the expiration of the usual period of incubation, it was found that in some the chicken was not at all developed; in others it had not attained its natural size; whilst in some instances its growth was quite preternatural.

Again, the conjecture that the quantity and quality of the nutriment it receives considerably influence the development of the organs of the fœtus, derives considerable support from the very interesting experiments made on bees by M. Hubert, of Geneva, in which he succeeded in producing at pleasure males, females, or neuters, by placing the young insects in a cell containing a greater or less supply of honey. So that we may consider anything that exerts an influence on the nutrition of the fœtus, as strong moral emotions (which are so often cited as the causes of monstrosities), may, to a certain extent, arrest or pervert its development. That this result is merely the operation of a physiological law, is evident. The diminution of the left lobe of the liver after birth, from the change which takes place in the supply of blood to that organ, is an instance of the physiological operation of that law; for the volume different organs attain, and that of their respective arteries, are directly proportional one to the other.

Quite a sufficiency of the lesions of structure have here been adduced to convince, I should think, any unprejudiced person that their course and progress, may even their very existence, depends upon those laws which, manifesting themselves in the healthy

body, are termed physiological laws. So strong and inseparable is the link which connects pathology with physiology. Of functional diseases it is needless to enter into detail, because they evidently may be referred to two great classes, viz.—increased and diminished activity of the organ or organs affected. Both these opposite conditions may co-exist in different organs at the same time, and then, if produced by the same cause, their co-existence is for the most part referable to that physiological law which so frequently manifests itself both in health and in disease, viz.—that law of compensation, by which increased activity in the functions of one organ is accompanied with a corresponding diminution in the function of another associated organ. If, then, diseases of function are referable to the increase or diminution of that function, upon the application of a stimulus or sedative, and the subjection of the organs to the influence of such agents be a physiological law, we must allow that that law was intended to serve some important end. Only two examples will be ample to show its importance.

1st. The secretion of bile by the liver is, in a healthy individual, generally directly proportional to the quantity and quality of the food upon which it has to act. Now, if the quantity of bile were invariably the same, there would obviously at times be too much for the quantity of food taken; at other times too little, according to the sum of the virtals which the individual has consumed.

2nd. The most natural and most frequent stimulus to the skin is warmth. The important property the skin possesses, of being excited to increased function by heat, either externally conveyed to the body, or produced by violent exercise, is obvious.

The laws which preside over disease are, then, the laws which preside also over health; and it is just because those laws are general, because they are impressed on the nature and not on the individual, that man is subject to disease.

—o—

Reviews.

Pharmacopœia in usum Nosocomii Regii Glasguensis. Auctore R. McGregor, Chir. ejusdem Nosocomii Pharmacopœo, &c. Editio Secunda. 18mo. pp. 36. 1835.

THE author of this work is apothecary to the Royal Infirmary of Glasgow, and was requested by some friends and pupils to publish the pharmacopœia of that institution. He has confined himself to the description of the preparations employed in the hospital to which he belongs; and as

these are excellent and few in number, we shall place them before our junior readers. It is always an advantage to students who attend the medical and surgical practice of a public hospital or dispensary, to know the formulæ employed in such an institution; and we hope ere long to see numerous formularies of this description. The author has executed his task very creditably. In our opinion, however, the prescriptions are too few in number, and might be advantageously increased in a future edition:—

“*Acidum Hydrocyanicum (Prussicum) Medicinale.*

Rx. Cyanidis Potassii grana triginta et duo,

Acidi Tartarici Crystallorum grana septuaginta et duo,

Aquæ destillatæ unciam.

Cyanidi et Acido phialæ vitreæ inditis addatur aqua, tunc phiala illico obturata et subinde agitata per horam dimidiam seponetur, ut Bitartras Potassæ formatus subsederit: dein effundatur Acidum Hydrocyanicum et Acidi Sulphurici diluti minima decem addantur. Grana centum hujus liquoris continent grana duo cum semisse Hydrocyanici Acidi Absoluti. Dosis. Mimina decem.

T. CLARKE.

Aqua Cardiaca (Toddy).

Aqua Citri Medicæ (Lemonade).

Aqua Lauri Cinnamomi.

Rx. Spiritus Lauri Cinnamomi drachmam, Aquæ fontanæ uncias duodecim. M.

Aqua Menthæ Piperitæ.

Rx. Spiritus Menthæ Piperitæ drachmam, Aquæ fontanæ uncias duodecim. M.

Aqua Menthæ Sativæ.

Rx. Spiritus Menthæ Sativæ drachmam, Aquæ fontanæ uncias duodecim. M.

Aqua Supercarbonatis Sodæ (Soda Water).

Aqua Tamarindi Indicæ (Tamarind Water).

Bicyanis Hydrargyri (Percyanis).

Rx. Cyanidis Ferri (Prussian blue) partes octo,

Oxidi Hydrargyri rubri per Acidum Nitricum partes undecim.

Aquæ destillatæ partes quadraginta.

Coquatur mistura donec expers coloris fit; dein coletur per chartam et vaporet ut chrystalli formentur. Dosis, octava pars grani.

Bolus Camphoræ,

Rx. Camphoræ, ope pauxilli Alcoholis fortioris in pulverem tritæ, grana sex,

Conservæ Rosæ Gallicæ quantum sufficiat.

Camphoræ conservam adde et fiat bolus.

Bolus Diaphoreticus Usitatus.

Rx. Pulveris Ipecacuanhæ et opii grana decem.

Electuarii Opiati quantum sufficiat ut fiat bolus.

Sumat æger talem unum omni hora donec sudaverit; sudore erupto bibat abunde de liquore aliquo diluente tepido. Detrahantur lecto stragula lintea et augentur stragula lanea præsertim super pedes.

Bolus Kino Compositus.

Rx. Pulveris opii granum,

———— kino grana decem,

Syrupi simplicis quantum sufficiat.

Misce. fiat bolus.

Bolus Communis vel Usitatus.

Rx. Pulveris radices Convolvuli Jalapæ scrupulum, Calomelanos (Proto-Chloridis Hydrargyri) grana sex, Pulveris radices Amomi Zinziberis grana tria.

Terantur simul et ope Mucilaginis Acaciæ Arabicæ fiat bolus.

Cataplasma Acetatis Plumbi.

Rx. Micæ panis quantum velis, Solutionis Acetatis Plumbi quantum satis sit ad madescendum panem.

Cataplasma Carbonis Ligni.

Rx. Cataplasmatibus communis partes sex, Pulveris Carbonis ligni partes duas. Misce.

Cataplasma Conii Maculati.

Rx. Foliorum Conii Maculati uncias duas, Aquæ libras duas.

Coque ad octarium, dein adde, Farinæ seminum Lini Usitatissimi quantum satis sit ad idoneam spissitudinem faciendam.

Cataplasma Convallariæ Multifloræ.

Rx. Radicis Convallariæ Multifloræ quantum velis,

Contunde in pulpam.

Cataplasma Dauci Carotæ.

Rx. Radicis Dauci Carotæ quantum velis, Coque ad aptam molliem et contunde in pulpam.

Cataplasma Emolliens vel Commune.

Rx. Farinæ Hordei Distichi, Furfuris Tritici Hiberni triti, utriusque, partes æquales.

Coque ex aqua ad idoneam spissitudinem, et illinatur superficies Oleo Napi sylvestris.

Cataplasma Iodurettum.

Rx. Cataplasmatibus Lini quantum velis, solutionis Iodinii Rubefacientis q.s. Misce. Lugol.

Cataplasma Lini Usitatissimi.

Rx. Aquæ bullientis partes quinque, Farina seminum Lini partem unam. Lento igne agita simul per sexagesimam horæ partem.

Cataplasma Panis cum Lacte.

Rx. Micæ panis bene tritæ partes duas, Lactis recentis partes sex. Coque simul leni igne per vigesimam horæ partem, et assidue agita donec

spissitudo idonea Cataplasmatibus fit.
Illinatur superficies pauxillo olei.

* Cataplasma Papaveris Somniferi.

R. Farinæ seminum Lini quantum velis,
Decocti Papaveris somniferi quantum
satis sit ad faciendum cataplasma.
Misce.

Cataplasma Hyosciami Nigri.

Fit eodem modo ut prius.

Cataplasma Vini Rubri.

R. Aquæ bullientis partes quinque,
Farinæ seminum Lini partem unam
et dimidiam,

Lento igne agita per horæ sexagesi-
mam partem: dein ab igne remove
et adde vini Rubri partes duas.

Ceratum Terebinthinæ Venetæ.

R. Terebinthinæ Venetæ partes quinque,
Ceræ flavæ partem unam.

Liquescant simul.

Cerevisia Fortior (Porter).

Cerevisia Tenuis (Small Beer).

Cerevisia Zinziberis (Ginger Beer).

Collyrium Perchloridis (Muriatis) Hydrar-
gyri.

R. Perchloridis (Muriatis) Hydrargyri
granum,

Aquæ destillatæ uncias sex. Solve.

Collyrium Perchloridis Hydrargyri cum
Vino Opii.

R. Collyrii Perchloridis Hydrargyri
uncias sex,

Vini Opii drachmam. Misce.

Collyrium Nitratis Argenti.

Fit ex duobus, tribus quatuor vel pluri-
bus granis ad unciam Aquæ destillatæ.

Collyrium Sulphatis Cupri.

R. Sulphatis Cupri granum,

Aquæ destillatæ unciam. Solve.

Collyrium Sulphatis Zinci.

R. Sulphatis Zinci grana duo,

Aquæ destillatæ unciam. Solve.

Convallariæ Multifloræ radix (Solomon's
Seal).

Cyanis Potassii.

R. Cyanidis Potassii et Ferri (Potassæ
Prussiatæ) bene triti et caute sic-
cati in olla ferrea quantum velis.

Inde pulverem crucibulo ferreo ope-
rito, dein ignem subministra quem
auge et auctum serva quamdiu Gas
prodierit; massæ residuæ nigræ
continenti Carburum Ferri et
Cyanidem Potassii affundatur aqua
frigida, ut solvatur Cyanis; dein
per chartam coletur et vaporet bal-
nei aquosi Calore ut Crystalli for-
mentur, quæ siccantur et servantur
in vase bene obturato: Crystalli
virides primum formatæ rejiciantur.

T. CLARKE.

Decoctum Avenæ Sativæ (Water Gruel).

Decoctum Hordei Distichi (Barley Water).

Decoctum Oryzæ (Rice Water).

Electuarium Carbonatis Ferri.

R. Sulphatis Ferri,

Carbonatis Sodæ, utriusque, partes
æquales.

Solve sales seorsim in aqua et per-

misce; lavetur Carbonas, qui petit
fundum, bis terve, dein exprimatur
valide et postea misceatur cum
saccharo et pulvere Aromatico ut
fiat Electuarium.

Servetur in vase bene obturato.

Dosis drachma dimidia ad drachmam.

T. CLARKE.

Electuarium Laxans.

R. Bitartratis Potassæ uncias duas,

Sulphuris sublimati unciam,

Syrupi Empyreumatici, q. s. Misce.

Dosis, drachma ad drachmas quatuor.

Embrocatio Usitata (Oleum Ammoniatum).

Enema Anodynum vel Opiatum.

R. Tincturæ Opii drachmam,

Aquæ calidæ vel Butyri recentis li-
quefacti unciam. Misce.

Enema Commune.

R. Sulphatis Magnesiæ,

Vel Muriatis Sodæ (Chloridis Sodii),
utriusvis unciam,

Aquæ tepidæ libram. Solve.

Enema Fœtidum.

R. Pulveris Assafœtidæ ferulæ Gummi
resinæ drachmas duas, vel Tinc.

Assafet. unciam dimidiam,

Aquæ tepidæ libram. Tere simul.

Enema Cucumeris Colocynthis.

R. Pulpæ Cucumeris Colocynthis un-
ciam dimidiam,

Aquæ bullientis libram,

Digere per horas duas et cola.

Enema Nicotianæ Tabaci.

R. Foliorum Nicotianæ Tabaci drach-
mam,

Aquæ bullientis libram.

Digere per horas duas et cola.

Injiciatur dimidium et repetatur si
opus sit.

Enema Purgans.

R. Olei Terebinthinæ drachmam,

— Ricini communis unciam di-
midiam,

Sulphatis Magnesiæ,

Muriatis Sodæ (Chloridis Sodii), utri-
usque unciam dimidiam,

Aquæ calidæ libram.

Misceantur bene et solvantur.

Enema Terebinthinatum.

R. Olei Terebinthinæ unciam dimidiam,
Syrupi simplicis unciam,

Decocti Avenæ tepidi libram.

Misce bene in mortario ut fiat emul-
sio.

Enema Terebinthinæ cum Sapone.

R. Olei Terebinthinæ unciam dimidiam,
Saponis Nigri uncias duas,

Aquæ calidæ libram. Misce.

Extractum Momordicæ Elaterii.

Dosis, quadraus grani ad granum.

Feculæ.

Radiciis Jatropæ Manihot (Tapioca),

Medullæ Cycæ Circinalis (Sago),

Radiciis Marantæ Arundinacæ (Ar-
row root), et Farina Orchidis

Masculæ (Salep), adhibeantur coc-
tæ ex lacte recente et mistæ cum
pauillo sacchari et Vini Albi.

Gargarisma Acetosum.

R. Aquæ fontanæ uncias octo,
Acidi Acetici tenuis unciam. Misco.

Gargarisma Acidi Muriatici (Hydrochlorici).

R. Acidi Muriatici diluti *r. l.* drachmas tres,

Aquæ puræ libram et dimidiam. M.

Gargarisma Acidi Nitrici.

R. Acidi Nitrici diluti drachmas duas,
Aquæ libras duas. Misco.

Gargarisma Biboratis Sodæ.

R. Biboratis Sodæ drachmam,
Aquæ puræ libram. Solve.

Gargarisma Capsici Annui.

R. Tincturæ Capsici scrupulos duos,
Aquæ puræ uncias octo. Misco.

Gargarisma Commune.

R. Sulphatis Aluminæ et Potassæ drachmas duas,

Aquæ puræ libras duas. Solve.

Gargarisma Acidi Sulphurici.

R. Acidi sulphurici diluti drachmam,
Aquæ puræ libram. Misco.

Gargarisma Chloridis Sodæ.

R. Solutionis Chloridis Sodæ unciam,
Aquæ puræ uncias octo. M.

Gargarisma Myrrhæ.

R. Tincturæ Myrrhæ unciam,
Infusi Rosæ Gallicæ libram. M.

Gargarisma Nitratis Argenti.

R. Nitratis Argenti grana octo,
Aquæ destillatæ uncias decem. Solve.

Gargarisma Quercus Roboris.

R. Sulphatis Aluminæ et Potassæ drachmam,

Decocti Quercus Roboris libram.
Solve.

Haustus Acidi Hydrocyanici.

R. Acidi Hydrocyanici minima decem,
Syrupi simplicis drachmam,
Aquæ puræ unciam. Misco.

Haustus Acidi Hydrocyanici cum Syrupo Hyosciami.

R. Acidi Hydrocyanici minima quinde-
cim,
Syrupi Hyosciami Nigri drachmas
duas,
Aquæ puræ unciam. Misco.
Sumatur pars dimidia et repetatur
post horam si opus sit.

Haustus Anodynus.

R. Tincturæ Opii minima triginta,
Syrupi simplicis drachmam,
Aquæ puræ unciam. Misco.

Haustus Anodynus Diaphoreticus.

R. Tincturæ Opii,
Vini Tartratis Antimonii, utriusque,
minima triginta,
Syrupi simplicis drachmam,
Aquæ puræ unciam. Misco.

Haustus Effervescens (Soda Powder).

R. Bicarbonatis sodæ drachmam dimi-
diam,
Aquæ uncias quinque,
Syrupi simplicis unciam dimidiam,
solve, dein adde
Acidi Tartarici grana viginti quinque
in Aquæ uncis tribus soluti. Misco.

Haustus de Seidlitz (Seidlitz Powder).

R. Tartratis Potassæ et sodæ vel
Sulphatis Magnesicæ drachmas duas,
Bicarbonatis sodæ scrupulos duos,
Aquæ uncias sex.
Solve, dein adde
Acidi Tartarici grana triginta et quin-
que in Aquæ uncis duabus soluti.
Misco.

Haustus Muriatis (Hydrochloratis) Morphicæ.

R. Solutionis Muriatis Morphicæ minima
triginta,
Aquæ puræ unciam. Misco.

Haustus Acetatis Morphicæ.

R. Solutionis Acetatis Morphicæ minima
triginta,
Aquæ puræ unciam. Misco.

Haustus Niger.

R. Sulphatis Magnesicæ unciam.
Infusi Sennæ uncias sex. Solve.

Haustus Olei Ricini communis.

R. Olei Ricini communis,
Aquæ Lauri Cinnamomi, utriusque,
unciam,
— Potassæ minima decem. Misco.

Haustus Vini Colchici.

R. Vini Colchici Autumnalis drachmam,
Tincturæ Opii,
Vini Tartratis Antimonii vel
— Ipecacuanellæ, utriusque, drach-
mam dimidiam.
Syrupi simplicis drachmam,
Aquæ puræ unciam. Misco.

Murias Auri et sodæ (Hydrochloras).

Dosis, pars quindecima grani.

Imperial.

R. Bitartratis Potassæ drachmas duas,
Syrupi simplicis unciam dimidiam,
Aquæ calidæ libras duas. Solve.
Pauxillum succi Citri Medicæ ad-
datur.

Infusum Diosmæ Crenatæ (Buchu).

R. Foliorum Diosmæ Crenatæ unciam,
Aquæ bullientis uncias duodecim.
Digere per horas quatuor et cola.
Dosis, uncie duæ.

Infusum Pareiræ Bravæ.

R. Radicis Pareiræ Bravæ concisæ et
contusæ unciam,
Aquæ bullientis uncias duodecim.
Digere per horas quatuor et cola.
Dosis, uncie duæ.

Infusum Sarsaparillæ. O. Bierne.

R. Radicis Sarsaparillæ concisæ uncias
quatuor,
— Glycyrrhizæ unciam dimi-
diam,
Aquæ calidæ octarios duos.
Macerare per horas viginti quatuor in
vase vitreo optime operculato, et
in loco frigido et obscuro: dein
cola in usum.
Sumat hujusce infusi dimidium, par-
titis vicibus quotidie.

(To be continued.)

SKETCHES OF THE MEDICAL PROFESSION IN PARIS.

NO. I.—M. CIVIALE*.

M. CIVIALE has attached his name to an admirable surgical operation—*Lithotrity*. Discoveries of this kind are not always the offspring of genius; but they do not the less render their author celebrated. "*Lithotrity* is glorious for French surgery, honourable for its author, and consoling for humanity." Such is the decision of Messrs. Chaussier and Percy, in their Report to the Academy of Sciences. It is the decision of competent and able men, after having seen with their own eyes the ingenious operator seize and break in the bladder stones of large size, and thus in a few moments accomplish a miracle. Indeed, the result obtained by M. Civiale had previously exhausted the patience of a great number of surgeons, eager in the search for it, but forced to abandon the pursuit. Such, then, was the opinion pronounced by those two learned men, in concise and appropriate language. The greater part of the medical public adopted it; and M. Civiale, strong in this decision, pronounced before the whole Academy, and countersigned by M. Cuvier, believed he was warranted in considering himself the inventor of an operation valuable for suffering patients, and honourable to himself and his country. Nevertheless, this has been disputed; and but little was necessary to make some of his contemporaries prove, that what he and the learned men above mentioned considered as new, was not so at all; that others before him had, no doubt, thought of it; that an account had been published of it twenty years before; and that they had themselves kept back the invention, only to render it perfect. Nor was this all; for after having proved that he was not the inventor of these instruments, they wished to prove that the instruments were not worth inventing—in fact, that they were detestable; and that, moreover, he did not employ them aright. In vain did he publish, in justification of his apparatus and his ability in using it, more than forty cases, of which thirty at least were decisive in his favour. These cases, according to his critics, proved nothing. Several of those who were operated upon are dead. Of course, this could only be from the operation. All have either had fever, or experienced some pain; and a good lithotritic operation ought not to produce either the one or the other. Some have laboured under incurable irritation of the bladder, which must be the fault of the instruments, and not of the presence of the calculus for five or six years previously. Some, it is true, have had no subsequent ailments; but

if they have not hitherto, they will by and bye, which amounts to the same thing. In short, M. Civiale, more talented in breaking calculi than in defending his reputation, did not know what to make of these charges.

Happily for him, the Academy of Sciences thought differently from his critics. It appeared to them that their objections were not sufficiently well founded to deprive M. Civiale of his honour, and his operation of its utility. In fact, the real proprietor of a surgical operation is he who knows how to apply it with success. All the fine theoretical reasonings, and the *legerdemain* of dates, prove nothing. In June, 1826, the Academy of Sciences awarded to M. Civiale six thousand francs; and, in June, 1827, another sum of ten thousand francs (being the Montyon prize), for having been the first to practise lithotrity with success. Other rewards, though less in amount, were given to Messrs. Heurtloupe and Leroy, for having invented or improved lithotritic instruments.

It is with a very ill grace that the adversaries of M. Civiale have contested his right. As to priority of invention, it belongs neither to them nor to M. Civiale. It is very certain that from very early antiquity different methods of this kind have been proposed; and there have been left on record even some examples of success. But it is equally true that all attempts had been completely abandoned for a very long time; and that the crushing of the stone in the bladder was considered an insoluble surgical problem. No one spoke of it—at any rate in public. It was not till after the experiments of M. Civiale that lithotriters were seen to spring up on all sides. As to the excellence of his operative apparatus, the critics shew a very bad spirit in endeavouring to raise a prejudice against it, when it has been proved by numerous and authentic cures; and they show a still worse spirit in boldly proposing others as better, with nothing more favourable to back them than two or three unsuccessful operations.

The medical public has been disgusted with these miserable intrigues; and if I have said a few words respecting them, in speaking of M. Civiale, it is because it appeared desirable that one who has not personally mixed in the debate, should give utterance to the public opinion respecting it. It is only fair that M. Civiale should enjoy the reward of his long protracted labours; and that he should be recompensed for his trouble by the friendship of philanthropists and the esteem of his countrymen.

In order to justify this eulogium, it may be well to give a sketch of his ingenious operation; a subject especially interesting to those afflicted with calculus, the number of whom is greatly more considerable than is generally supposed. M. Civiale did not arrive at his fortunate invention by a single

* This series of sketches is translated from the *Medecins Français Contemporains*.

effort; for knowledge is not won at so slight an expense. His first idea was to dissolve the stone in the bladder by means of an appropriate re-agent. The attempt was not new; it had been made many times before, without success. Two obstacles always presented themselves: first, the necessity of protecting the bladder against the action of the chemical agents destined to dissolve the calculus; and, secondly, the uncertainty in which the operator was involved, as to the employment of one re-agent rather than another, from his being ignorant of the nature of the stone attacked. To overcome the first of these obstacles, M. Civiale invented a kind of pouch, which was introduced into the bladder by means of a straight tube, in which it was kept closed, and was then expanded, like a purse, and was made by a particular mechanism to inclose the stone. Agents introduced through the tube were thus brought into contact with the calculus isolated from the bladder. This contrivance would have been practicable, had it not been for a circumstance which the author had not previously taken into consideration; but which, when once known, convinced him that he had lost his time and his trouble, like his predecessors. To make a pouch was not all that was required—it was necessary to find a material which, at first very thin and flexible, would afterwards resist the action of the chemical agents directed against the stone. Not one could be found in all the three kingdoms; and M. Thenard, whose decision was but too infallible, assured him it was necessary to abandon this project and seek another, if he had still any patience remaining.

M. Civiale is obstinate. He was not discouraged; and he ultimately obtained his object, as we shall presently see. According to his original design, and even supposing the practicability of the pouch, it would be necessary to obtain previously some fragments of the calculus to dissolve. In order to procure this indispensable sample, it was requisite to introduce into the bladder instruments large enough to divide the stone, and so contrived as not to wound that viscus. Several facts mentioned by authors, as well as his own study of the structure of the urethra, convinced him that it was possible to introduce through that canal sounds completely straight, and a third of an inch in diameter, or even more. He was convinced in this opinion as to these two very important facts, by experiments on the dead subject and on himself. He proceeded, therefore, to the invention of two pieces of apparatus, destined at first only to separate some small fragments of the stone, and thus to serve as a preparatory step to the main operation, consisting in the dissolution of the stone by chemical agents. The following is M. Civiale's description of the first of these pieces of apparatus.

"A metallic cylinder or tube, with thick walls, about a quarter of an inch in diameter, and four inches long, was indented longitudinally with four grooves, which were converted into tubes by another metallic cylinder, with thin walls, and grooves to correspond; and into which cylinder the first slid. To one extremity of the inner tube were fixed four branches by means of hinges; each branch being likewise formed of two pieces, also united by a hinge. Metallic wires of a middle size were introduced through the four grooves, and after passing in a gutter along the internal surface of the first piece of each branch, were fixed with the extremity of the second. They served to move the branches, separating and drawing them together at pleasure by a mechanism analogous to that by which the motions of flexion and extension of the fingers are effected. At the other extremity of the cylinders was an apparatus for giving to the branches the movements necessary to seize the stone, and fix it securely, so that it might not escape but at the pleasure of the operator, who might make all the wires act together, or either of them separately. The central passage, an eighth of an inch in diameter, was designed to receive the perforator, or the stylet as it was otherwise called. The latter was furnished at its outer extremity with a handle, by the assistance of which it was made to act upon the stone, while at the same time it limited its introduction into the canula to a certain point, so that its inner extremity might reach the coats of the bladder."

Such was the first of the instruments contrived by M. Civiale. The second was much more simple, although constructed on the same principles. It consisted likewise of two metallic tubes, sliding one within the other. "At the extremity of the inner tube were soldered six branches of elastic steel, slightly curved inwards. At the opposite extremity was fixed a strong screw by means of which the tubes could be moved one upon the other. The stylet, or *lithotriteur*, consisted of a steel rod, with a three-sided pyramidal extremity internally, while the other was fixed into a handle, which facilitated its action on the foreign body, and limited its introduction into the canula to the proper point. When the *outer* tube was pulled back, the branches fixed to the inner tube, being set free, separated by their natural elasticity; while, on the contrary, when the outer tube was made to slide forward on them, they were brought together, and formed by their union a round extremity, by which the instrument was introduced into the bladder."

These two instruments were invented only to procure some fragments of the stone, in order to ascertain its chemical composition. It would seem a reflection likely to occur to M. Civiale, that if it was possible to act at all upon the stone, there was nothing to

prevent its being entirely destroyed. Nevertheless this did not occur to him till very late, when he found himself obliged to renounce his pouch of protection against the acids and alkalies.

The last of these instruments presented much greater advantage than the first, both with respect to strength and facility of executing the manipulations required. It is that which M. Civiale still employs; but he has made it undergo several very advantageous modifications. The six elastic branches are reduced to three; and the *lithotriteur* has a little head armed with teeth; while to its other extremity has been adapted a bow and drill, similar to those which watchmakers use. With this ingenious instrument, skilfully employed, M. Civiale has succeeded, in ten or fifteen minutes, in grinding to powder a stone of ordinary size. The operation is truly admirable, both for its innocence and its success. Whoever has seen M. Civiale, as I have, introduce his instrument through the urethra with the greatest facility, reach the bladder at once, seize the stone very quickly with his fingers of steel, and make the *lithotriteur* act upon it, cannot but applaud this *chef d'œuvre* of patience, and of difficulty overcome. When once the bow is set in motion, we are not long in hearing a sound which is more or less dull, and which announces the action of the perforator on the calculus. At the end of two or three minutes this noise becomes all at once more obscure; and the practised hand of the operator perceives that a portion of the stone is detached. The elastic branches are immediately drawn back into their case; becoming charged as they approach each other with a greater or less quantity of detritus. The rest is expelled with the urine. After a few minutes, if the patient be not too much fatigued, the operation is recommenced. Very often a single sitting is sufficient for the entire destruction of the calculus; but in that case it is necessary that the operator should have to do with a small and very friable stone. In the great majority of cases it is necessary to return to it several times.

The advantages of this operation appear to me very great. The pain which attends it is almost nothing*. The canal of the urethra, previously distended by sounds progressively increased in size, accommodates itself very easily to the introduction of the instrument. After the operation the patient is able to take exercise as freely as before; and in general he feels much relieved by the diminution which the calculus has sustained; and especially by the conviction that his cure approaches. But its greatest advantage is, that in the majority

of cases it obviates the necessity of having recourse to lithotomy; an operation which is terrible to the apprehension of patients, is always accompanied by severe pain, and is too often followed by death or by incurable infirmities. It is true that lithotritry is not always applicable. For instance, encysted stones, or those of a very great size, cannot be seized and ground away; but in these cases even cystotomy would offer but slight probabilities of success. Besides, as M. Civiale very justly observes, the greater part of these obstacles would never occur at all, were it not that those afflicted with stone, frightened at the idea of lithotomy, recoil perpetually from the operation; endure for years the most agonizing pains, rather than submit to it; and thus allow stones of enormous size to form in the bladder, with complications of every kind. These distressing occurrences will no longer exist, when lithotritry shall become familiar to a great number of practitioners. Encouraged by the mildness of that operation, patients will have recourse to it as soon as the pain and the sound shall have proved the commencement of a calculous deposition in the bladder; and the stones being still very small, very friable, and not having deteriorated the constitution by a long-continued presence, the patients will be altogether quit of them with the greatest ease.

Various objections, to which, however, facts have furnished a complete refutation, have been made to lithotritry. It has been affirmed, or rather *supposed*, that the introduction of straight sounds was impossible; but the contrary has been proved by the testimony of many practitioners ancient and modern; and among others the celebrated Lieutaud, who gives a positive declaration to that effect. Straight instruments of that description have even been found in Herculeaneum. Nevertheless, their employment had been so proscribed or neglected, that M. Amussat has the reputation of having made a discovery, by demonstrating very recently, that the true structure of the urethra was not at all opposed to the introduction of straight instruments. This objection, therefore, falls to the ground at once.

The great size of the instruments, the pain of the operation, the length of the treatment, its dangers and its consequences, have not furnished arguments of a more valid description. The urethra is very dilatable; and, unless in the case of a peculiar conformation, it may in a few days be dilated sufficiently to admit with facility tubes of three, four, or even five lines diameter. The pain is very slight; and if we cannot entirely ensure the patient against it, that is an inconvenience which does not at all militate against the employment of lithotritry. Most frequently, too, the pains are owing to the serious nature of the alterations induced by the continued presence of the calculus, and the extreme nervous sus-

* At the discussion which recently took place at the Academy of Medicine, some of the speakers alleged that the pain attending lithotritry was *greater* than that of lithotomy.

ceptibility which is the consequence of its long residence; all which are things which would not have taken place, if the operation had been performed at the commencement of the malady. The treatment is in general of short continuance; but it may be considerably protracted by various causes. This is without doubt a misfortune; but it appears to me, after all, that a calculous patient ought to consider himself very happy in obtaining relief from his sufferings, and perhaps even saving his life, by an exercise of patience; and that at the worst, it is better for him to remain three months under the hands of the slowest lithotriteur, than two minutes under the knife of the most expert lithotomist. Besides the length of the treatment being commonly in direct proportion to the duration of the malady, the practice of lithotripsy must ultimately abridge it greatly.

The immediate dangers of the operation are illusory. It is alleged that the bladder may be pinched, wounded, &c. All this may happen with imperfect instruments, or in unskilful hands; but the same inconvenience attends every possible operation in surgery. The skill of the operator is always taken for granted. The most simple operation (that of bleeding for instance), may be followed by the most serious accidents, and even by death, from the awkwardness of an ignorant pretender. There is no valid ground of objection here.

Dangers of a more remote description, such as chronic inflammation of the urethra or bladder, the leaving behind of some fragments of stone not triturated, &c., are only presumptions which experience has not confirmed. None of the patients treated by M. Civiale have met with any troublesome symptoms, either local or general, as consequences of the operation; and in the case of several who have died since, examination has proved that the cause of their death was altogether unconnected with the operation, and that the bladder contained no calculous fragments.

From these considerations, which M. Civiale has very properly insisted on in his favour, we cannot avoid expressing a wish, that lithotripsy should engage more of the attention of practitioners; and we cannot but applaud the Academy of Sciences for having, as much as in them lay, encouraged and recompensed M. Civiale for his labours.

Various modifications having been made in the operative instruments, by Messrs. Leroy (d'Éliolles), Heurtloupe Amussat, and Meirieux, it would appear that lithotripsy, notwithstanding its apparent simplicity, presents to the operator difficulties which are sufficiently great; and that in order to succeed, he must make multiplied efforts on the dead body, and have great skill in manipulation, with respect to all parts of the apparatus. M. Dupuytren himself, whose surgical dexterity is so justly renowned,

failed in an attempt which he made lately at the Hôtel Dieu.

The results obtained by M. Civiale from his first operation in 1823, to 1827, have been most satisfactory. Out of forty-three patients operated upon by him, forty-two have been cured of the stone: not of all their maladies, present and to come, as seems to be desired by the author of a *Letter to the Academy of Sciences, containing a Critical Examination of M. Civiale's Work, &c.* This letter has done a great deal of good to M. Civiale, though that was evidently very far from the intention of the writer, whose comments are not distinguished for their impartiality. Several patients have died since undergoing the operation; but the autopsy has proved the innocence of that proceeding. Time will dissipate all the doubts which prejudice and unsuccessful attempts have given birth to on the subject of lithotripsy. It may be considered as only of yesterday's date; but like all useful things, it must ripen and come into general use. Every thing induces us to hope that M. Civiale will experience every day an increase of the esteem and gratitude which his fellow-citizens have shewn him, and to which he is entitled from all the friends of science and humanity.

—o—

WESTMINSTER MEDICAL SOCIETY.

RICHARD QUAIN, ESQ., IN THE CHAIR.

Saturday, January 9, 1836.

Disease of the Chest simulating Phthisis— Mineral Magnetism.

DR. ADDISON related a case which he had lately had under his care, and in which he had committed a mistake in his diagnosis, and therefore was more anxious to lay it before the Society, as a caution against giving hasty opinions. The patient, a boy about ten or twelve years of age, was sent to Dr. A. by a surgeon, in order that he might be treated for an amaurotic affection, supposed to be dependant on a hydrocephalic tendency. Dr. A. was proceeding to prescribe for the patient, when a pupil present found that disease of the chest was present. The chest was then examined, and found to be the "pigeon-chest." The heart was beating violently. On examining the chest with the stethoscope, the left lung was found to be affected with pneumonia, which was attended with a peculiar mucous râle, very much like that sound which is attendant on the softening of tubercles. Dr. A. therefore considered that the patient had tubercular affection of the lung, and that he was now suffering from pneumonia accidentally acquired. One thing, however, staggered him with respect to this diagnosis, which consisted in the fact of the peculiar sound he had alluded to not being at the apex of the

lung as it usually is in the early stage of phthisis, but as low down as the sixth or seventh rib. He prescribed for the above symptoms. Feeling great interest in the case from the perplexity attending its diagnosis, Dr. A. visited the child at Hackney, when he again examined the chest, which examination led him still to believe his first opinion had been the correct one. The child, however, materially improved, but the mucous râle still continued. The disease gradually disappeared, and the patient got health and strength. Now, what was the source of the fallacy in this case—for it was evidently not phthisis, from the fact of the rapid improvement in the patient's health? On reflecting on the case, and again examining the child after the pneumonia had ceased, he found that the patient had been labouring under emphysema, and that the peculiar mucous râle was the result of pneumonia supervening on that disease.

He had brought forward this case in order to show the necessity of giving very careful diagnoses in affections of this nature. Had he not seen this child after the first and second time, the impression on his mind would have been that it was labouring under phthisis, and had the case been placed under the care of an empiric, and done well, it would then have been called a perfect cure of consumption; and the proof of its being that disease, would rest on the authority of Dr. A. In answer to a question, Dr. A. replied, that he had treated the disease in the way usually pursued—it continued under his care three or four weeks, the peculiar mucous sound remaining all the time. When the child's general health improved, the sight also became better.

Dr. Leonard Stewart thought that the short space of time in which relief was afforded in cases similar to the present, was quite sufficient proof of there not being phthisis. As far as his experience went, he had never seen any benefit result in the last-named disease in so short a space of time, as was evident in Dr. A.'s case.

Dr. Addison, in answer to a question from Mr. Smith, remarked that the symptoms in the above case were such as he generally found were indicative of the presence of pneumonia. There was not, however, that distressing cough and constant expectoration which were said by some authors to be symptomatic of pneumonia; indeed, he believed that in pneumonia in general there was little cough and no expectoration, except occasionally when blood was thrown up. When, however, pneumonia was complicated with bronchitis, expectoration was generally profuse. He had two cases under him at that time, both in one bed, in which this fact was fully confirmed. He believed that pneumonia was not a very uncommon disease, though he thought it was frequently overlooked, for want of strict attention on the

part of the practitioner. He had adopted no difference in the treatment of the two cases he had then under his care, pneumonia with bronchitis, and pneumonia alone, except that in the first his treatment had been rather more sedative than in the last.

A long discussion now ensued between Drs. Choune and Addison as to the correctness with which Dr. Cullen had defined some of the diseases of the chest. It was contended by the first speaker, that Dr. Cullen had pointed out the difference between peripneumonia and catarrh, and that the same author stated that when the parenchymatous substance of the lungs was inflamed, there was no expectoration: but when the bronchi were affected, that symptom was present. Dr. Addison, on the contrary, contended that, until the discoveries of Laennec, our knowledge respecting diseases of the chest was obscure and imperfect, and that Cullen was most incorrect in his descriptions. At the present time, however, he (Dr. A.) was convinced that when pneumonia was present, it may be invariably detected; for we had now, thanks to Laennec, diagnostic marks, which would always distinguish one disease of the chest from another. With regard to complications in diseases of the chest, there would always be complications in every disease.

Mr. Fernandez believed that pneumonia was a frequent disease; he did not consider, however, that the diagnosis was so easy. He had lately examined a body: the patient during life was attended by an eminent physician, well acquainted with the use of the stethoscope, and who was at a loss to give a diagnosis. On examination after death, the passages of the bronchi were completely stopped up by the thickening of the membrane, so that there was no passage for the air.

The question of Medical Magnetism was then brought forward; and, after a long discussion, it was decided that Dr. Ritchie should be invited to attend at the Society at its next meeting, and to prove by experiment the influence of the magnet in connexion with the body in health and disease.

Dr. Ritchie, who was present, very kindly agreed to give the Society all the information he could respecting the subject of Mineral Magnetism, and that he would attend the next meeting for that purpose.

The Society then adjourned.

Saturday, January 16, 1835.

RICHARD QUAIN, ESQ., IN THE CHAIR.

The Society was occupied this evening with the experiments of Dr. Ritchie, in explanation of the present theory of magnetism; not, as he said, for the purpose of opposing the peculiar views of Dr. Schmidt, but in order that the Society might more clearly understand the subject, and then

judge for itself. Dr. R. gave a most interesting lecture, which embraced his own views regarding this branch of natural philosophy. He contended that magnetism was entirely produced by electricity, and that it can be produced by nothing else—even the earth owing its magnetic influence to that power. With regard to Dr. Schmidt's view that the north pole produced a north pole and nothing else, Dr. R. contended that it produced both poles, and that the south pole did the same. In support of this assertion the following experiment was tried:—a circular piece of soft iron was placed on the south pole, and drawn several times over it round the entire circle, every particle thus becoming an elementary magnet; so that if the ring were broken, one end of the piece of iron would be a north, the other a south pole, and if still more divided, every portion would be a perfect magnet. The ring was broken and the magnetic power of the portions proved. Now the same result would happen if he had drawn the ring of iron over the north pole instead of the south; he might then ask this question—What produced the south pole in such case, if the assertion was correct that each pole only produced its like? With regard to the magnetism of the earth, Des Cartes was wrong in supposing there was an electric current passing from north to south—there was no such thing—all depended on arrangement; any piece of iron kept long in one position became a permanent magnet. In illustration of this, Dr. Ritchie walked to the fire-place, took up the poker and shovel, and found from experiment both were permanent magnets. The following interesting facts were mentioned. If the magnets were lost on ship-board, a permanent magnet might be formed very easily in the following way:—make several pieces of iron wire red hot, then cool them, and hold them in a vertical direction for some time, and then blend them together; one end would be a north pole and the other a south, and thus the magnet would be furnished. He contended, that while the magnet was at rest no electric or physiological effect could be produced, but only when assisted by motion. It was generally supposed that when an electric shock was received from a Leyden jar, it was the result of something passing from the jar into the body; but according to his idea on the subject, that opinion was incorrect. The effect was produced from the electricity residing in the body in a state of equilibrium, being rapidly decomposed by the application; the system was thrown suddenly into a new state, which produced the sensation generally termed "a shock." It was curious to read the history of electricity, as applied to medical purposes—at one time being praised up as a valuable remedial agent, and a few years afterwards, considered of scarcely any utility; with

regard to himself, he thought that good effects were often produced by its application, and bad ones sometimes. He had, perhaps, received as severe a shock as any one; it was from sixteen large jars: he could scarcely describe the effects, but he could compare the sensation to nothing else than what he considered would arise from a cannon ball, nearly spent, striking the point of the elbow without taking the arm entirely off; he felt the effects for several weeks, the nerves of the part being in a state of great agitation. Little was known of the effects or uses of electricity, but he thought that it was a subject worthy of being seriously thought about and tried. Our knowledge of the use of the magnet was less: we only knew that it pointed to the north.

Dr. Schmidt was not prepared to explain his views by experiment, as he supposed Dr. Ritchie would have occupied the evening; but the Society had seen his (Dr. S.'s) experiments on a former evening. With regard to Dr. R.'s assertion, that all magnetism was the result of electricity, he might ask whether a third power might not be operating, and which power was not recognizable. He thought Dr. Ritchie was too positive in stating that the magnet produced no physiological effects, as the arguments he had adduced in support of that opinion were founded entirely on theory. Now, he (Dr. S.) need scarcely say that one fact was worth all the theories in the world. He would not rest his assertions on experiments; he had seen what he was convinced in his own mind were physiological and curative effects from the application of the magnet. He asked Dr. Ritchie to examine the new views he had brought forward, and then, if they were controverted, and he was convinced that he had been in error, he would acknowledge it, and that publicly. With regard to the method of forming magnets which he had advocated, he had succeeded in that way in producing more powerful magnets than he had ever before seen. He still believed the same poles, when placed opposite to each other, produced greater power, and that the opposite poles destroyed each other. Some further remarks were made on each side of the question.

Dr. Ritchie said he should be happy to meet Dr. Schmidt at any time, and examine into the views advocated by the latter gentleman; if he found them to convince him of their correctness, he should certainly lose no time in making it known. He believed, however, there was not so much difference of opinion between himself and Dr. Schmidt as might be supposed; the disadvantages Dr. S. laboured under, as a foreigner, in making himself clearly understood, might account in part for this.

Mr. Golding Bird having taken some interest in the question, had tried the following very ingenious experiment. He pro-

cured a piece of soft iron, in the shape of a horse-shoe magnet, and attached to it two copper wires, which communicated with a small galvanic battery, so that he could at a single moment make the soft iron a magnet capable of sustaining a weight of sixty pounds, and as quickly could reduce the iron to its natural state. He applied this instrument, magnetized, to the closed eyes of an intelligent young woman: the effects produced were a sense of warmth, lacrymation, &c. He demagnetized the instrument without her knowledge, and without taking it from her eyes, and she still declared the same effects were induced.

On the motion of Mr. Chinnock the thanks of the Society were given to Dr. Ritchie for his attendance.

Dr. Johnson wished Dr. Schmidt to have the same honour paid him, but the President said it was against the laws of the Society to thank one of the members, Dr. S. having that evening entered himself a member. He might, however, state to Dr. S. that this was the only reason for his not receiving the thanks of the Society. The Society then adjourned.

—o—

GREAT MEETING OF MEDICAL STUDENTS AT THE CROWN AND ANCHOR.

—

ON Monday evening, before six o'clock, the great room at the Crown and Anchor was filled with medical students, having been called there by public advertisement, to discuss matters which were of "vital importance to them." Before the chair was taken, on a fair computation, somewhere about 1,500 persons were present. Amongst others on the platform, we noticed Mr. Wakley, M.P., Mr. Liston, and Mr. Carpue. Mr. Mead having been unanimously called to the chair, proceeded at once to state the object of the meeting. He stated they had been called together for the purpose of exerting a moral force against their oppressors—of adopting means to remedy injustice which was practised on them at Apothecaries' Hall. It was only on Thursday week last that a student of his (the Chairman's) went for the purpose of being examined at that institution. His examiner happened to be one who is not in the habit of deporting himself towards the candidates for diplomas either with courtesy or fairness, but, on the contrary, is rough in his manners, and puts questions of such a character that they cannot answer any useful purpose, but rather tend to confuse and irritate the candidate. In the commencement of this transaction, the Secretary to the Society of Apothecaries had borne a part which was worthy of his general conduct, which was neither kind nor polished. No questions were asked the can-

didate as to where he had been educated—that was known before; and he felt convinced, from the manner adopted towards him, that he was to be "rejected." Mr. Mead here stated some of the questions which had been put to his pupil, and answered by him. We shall not repeat them here—but if called upon to give an opinion respecting them, we cannot consider the answers as anything but satisfactory ones, and such as should have been given. With regard to the little pettifogging cross-examinations, we have only to say they were unworthy of a scientific institution. The Chairman had, in the course of three years, passed a vast number of pupils—one only before had been rejected, and that too by the same examiner! Why was this? Was it not to be supposed there was some private cause for such a circumstance? He thought—nay, he was convinced of it; for the gentleman who was last "rejected" was of superior attainments, indeed was "eminent" in the sphere in which he moved. It was then a private feeling which had instigated his rejection; and he (the Chairman) contended, that until the examinations were conducted in public—that is, open to the whole profession—there would be no safety to the medical student. The rejected candidate had demanded a *public* examination (complaining also of the injustice he had received), but this the Court of Examiners had refused him.

The Chairman then called on the meeting to be quiet and orderly, and to prove that the medical students of London could exert a great moral power in defence of their rights, and the removal of their oppressors.

Letters were read from Messrs. Hume and Warburton, in which those gentlemen fully concurred in the objects of the meeting, and expressed regret that other engagements prevented their attendance.

A series of resolutions were passed, which had for their object the *radical reformation* of the Company of Apothecaries—the establishment of *concours*—and the formation of a Society for the protection of medical students.

The meeting was, though an animated and enthusiastic one, conducted with strict order, decorum, and unanimity, however much the enemies to the cause have wilfully and shamefully misrepresented it.

Mr. Carpue spoke of the necessity of reform in all our medical corporations. Mr. Wakley being loudly called for, came forward, and was received with the most deafening cheers. In a speech of great eloquence, wit, and satire, he exposed the abuses of "Rhubarb Hall." He contended that the rejected candidate had not been *legally* examined: the law of the Society of Apothecaries stated that the student was to be examined as to competency by a majority of the Court; a Court could not be formed unless seven examiners were present. How was it that a person

could be "rejected," according to that law, when there were four examining tables, and candidates at each? He contended that the Court of King's Bench would compel the Society to examine the "rejected" again; but he (Mr. W.) would not advise an appeal to that Court, but would wish the gentleman to abide by his demand of being tested in public. It had been said by the pretended friends of medical students, that they were too nervous to stand up before the public; but the speaker contended that not to be the fact—no other evidence of its falsehood being wanting than the spirit that had been shewn that night, and the unanimity with which the resolutions calling on the legislature for *concours*, had been carried. He would boldly state, because it was true, that the Apothecaries' Company had done much good; but, when he balanced the evils against the good which belonged to it, he found the latter "kicked the beam." Mr. Wakley then spoke of the hardship which the rejected candidate was exposed to. In numerous instances which had come under his notice, men of unquestioned talent and attainments had been rejected. When he reflected on the anxieties, the cares, the toils of the medical student—when he thought on these—and the hopes of his friends who had contributed to support him in London, in many cases at great sacrifices—he could hardly fancy a man so cruel, so totally lost to every human feeling, as to wish to "reject" any man—to turn his expected horn of triumph into one of despair and degradation. He had seen rejected candidates, their last shilling spent, throw up the profession in despair; though, had they been treated as their merits entitled them to, they would have been ornaments of the science of medicine.

The establishment of *concours* would do away with these evils, would establish a system of examination in which giggling, annoying, unfair questions, asked more with the intention of shewing the quibbling dexterity of the examiner, than of testing the knowledge of the candidate, would never be put. Any resolutions that might be carried at that meeting, he could confidently state, would meet with every attention in Parliament; there was not a member of that high assembly but received with the greatest attention any thing relating to the reformation of the profession. He might suggest one thing to the meeting: the Chancellor of the Exchequer was just about framing the charter of a new Metropolitan University; now, if a deputation from that meeting would wait on the right honourable gentleman, and state to him the resolutions that had been passed that evening, he was convinced it would be of benefit; nothing could be lightly received when coming from such a meeting. Those resolutions would come "just in time." The honourable gentleman sat down amid tremendous applause.

Mr. Liston, being seen on the platform, was loudly called on; and expressed himself as favourable to the objects of the meeting; and sat down amid great cheers.

A petition to Parliament, embodying the resolutions, and signed by the chairman in the name of the meeting, was decided on; and we understood that a deputation was also formed to wait on the Chancellor of the Exchequer, as suggested by Mr. Wakley.

Want of space precludes our giving a more lengthened report of the meeting. We trust we have said enough to shew that it was one of the greatest importance; and important in nothing more than in shewing the unanimous feeling of the rising profession against our corrupt and close corporations. We congratulate the medical students of London on the step they have taken. It will do much for the establishment of that reform which is so much required; and, though we should not wish to go to the full extent of some of the speakers, we do wish heartily to see that for which we have so long fought for in their defence and for their interest—a just reward of talent, and a fair, equitable, and *public* examination!

—o—

The London Medical

AND

Surgical Journal.

Saturday, January 23rd, 1836.

MEETING OF MEDICAL STUDENTS.

OUR readers will find a report of a meeting of the medical students of London, which was held on Monday last, at the Crown and Anchor Tavern, to take into consideration subjects of great importance to their interests. The cause of this was, that a candidate for examination for the license of the Apothecaries' Company, complained of having been unfairly examined, rudely treated, and unjustly rejected. It was stated that he was pronounced eminently qualified by a private teacher. He felt highly indignant at what he considered gross injustice; he mentioned his case to his contemporaries, who with bold and manly independence accompanied him to the Apothecaries' Hall, where he respectfully demanded a public examination, which was instantly refused. The appearance of, as we have been informed by one of the committee of students, 600 of the above candidates at

Blackfriars, terrified the worshipful Company, who magnanimously applied to the civil authorities for protection. There was no necessity whatever for this proceeding; but as tyrants are always cowards, it was adopted. The students retired on their friend receiving a refusal, and conducted themselves, as the profession might expect from gentlemen of education and science, in the most proper and decorous manner. They repaired to an adjoining hotel, and after having duly considered the injustice done to one of their body, determined to call a public meeting. These proceedings took place on Thursday se'nnight, and on the following Monday, though the notice was very short, between 1500 and 2000 students, besides a large number of practitioners, assembled at the Crown and Anchor. Their proceedings were cool, determined, and orderly, and they unanimously adopted the substance of the resolutions which will be found in another of our pages. We have received an account of the proceedings from many sources, and from our own special reporters, on every one of whom we place the most perfect reliance; and all agree, that the meeting was conducted in the most orderly and proper manner, and that it was grossly and wilfully misrepresented by the reporter of the *Times*.

But we leave this disgusting topic, and proceed to notice the real question. An examiner of the Apothecaries' Company, unmindful of his oath to act impartially in ascertaining the knowledge and competency of a fellow citizen to obtain admission into a certain department of the medical profession, is charged with having, from caprice or private motives, perpetrated the grossest act of injustice. The charge may be true or false. It must be either. But the law does not give power to any one examiner of the Apothecaries' Company, or of any other examining bodies, without just cause, to disgrace an individual, and have the finger of contempt

or scorn pointed at him. More than one of the former examiners of this court have done this atrocious deed, as we proved it before the Parliamentary Committee on Medical Education and Practice. They iniquitously placed the mark of disgrace on the foreheads of medical students, who, to our personal knowledge, were much better informed than themselves; but what else could be expected from unlettered men, whose pelf has placed them in situations for which education, talent, or genius, never intended them. We have often shewn, in this journal, the impropriety of having such persons placed at the head of the profession; and this is now the general opinion. As shareholders in a wholesale commercial establishment, they should be confined to their proper business, and leave science to those who have cultivated it. In fact, this is their own opinion, expressed to Parliament, when told they must be either wholesale druggists, according to their charter, or a scientific society of pharmacy: they declared they preferred the former. A court of examiners for ascertaining the fitness of candidates for admission into the medical profession, selected from such a body, must necessarily be incompetent and partial, nor can it be influenced by that high sense of honour and justice which characterize the better informed examiners of the universities and colleges. These invariably reject a candidate with most painful feelings, because they appreciate the injury they do his reputation and prospects in society. It is, however, true that some learned individuals have been rejected by the medical boards, but not in the same proportion, as by the Apothecaries' Company.

It is highly creditable to the medical students to boldly express their grievances, as it demonstrates that their acquirements are such, that they even solicit a public examination—that is, public as regards the profession. Such examinations are held in Dublin, Paris,

and other metropolitan cities, and deter examiners from acting unfairly.

We look upon the meeting which gave rise to the foregoing remarks, as one of great importance to the cause of medical reform, and to the modification or abolition of the Apothecaries' Company, as an examining body. We are ready to admit, that this Company has done much good in improving the education of medical practitioners; but it has done much more injury to the medical profession and public.

It affords us much pleasure to observe the false report in a morning paper, contradicted by the chairman of the meeting; and we feel convinced, from the high mental cultivation of the present race of medical students, that the expression of feeling ascribed to them was wholly untrue. It was a malicious fabrication, to disgust the public against them, for the purpose of *burking* their petition. It however has signally failed to produce such effect—the days of the Hall are numbered, and its fate determined.

—o—

Hospital Reports.

NORTH LONDON HOSPITAL.

Remarkable Dilatation and Hypertrophy of the right side of the Heart.

ROBERT WHEELER, aged 23, was admitted, Dec. 15, under the care of Dr. Elliotson. He is a tailor, of very moderate habits, having never been addicted to drinking. His appearance is strumous, fair skin, rather light hair, swelled lip, and rather dilated pupils. He has always been weakly, and has had several attacks of rheumatism, but none for the last five years. He has been subject to a cough and palpitation for the last two years, but continued to work till three weeks ago, since which time he has become gradually worse. He began, however, about four months ago, to suffer from cough and pain in the left side, for which he was leeches and blistered without relief.

Present Symptoms.—No particular symptoms in the head, except a little giddiness; he is occasionally, however, very drowsy, sleeping between each question that is asked him; he coughs a good deal, and expectorates a very frothy mucus; respiration is rather quick and shallow; chest small and

narrow; there is no pain in breathing or coughing; he can only lie on the left side; if he attempts to lie on his right his breathing is worse, and he has pain in the region of the liver; respiration is more difficult at night and in foggy weather, and he sometimes cannot lie down at all; he complains of palpitation of the heart in making any exertion: a fluttering is observed in the cardiac region by mere inspection; a pulsation is observed in the internal jugular veins, which are enlarged—it is greatest on the left side, where the external jugular vein is also enlarged and pulsates—the pulsation is synchronous with the pulse, and to the finger feels to have considerable force.

Auscultation.—Respiratory sound feeble generally; there is a sub-mucous or subcrepitant rattle over the greater part of both lungs, especially the inferior, and still more posteriorly and inferiorly; the impulse of the heart is very great, and is perceived very distinctly under the left clavicle, and over the whole anterior and inferior left side of the chest; it is felt also very distinctly (so as to raise the head) on the right anterior, and lateral part of the chest, fully as high as the nipple, and as far laterally as to a line dropped from the posterior boundary of the axilla. There is a loud bellows sound (giving all the impression that it is deeply seated) with the systole, along the whole length of the sternum, but loudest about opposite to the fourth rib; also to the left of the sternum, in the cardiac region inferiorly, is a second cardiac sound, rather loud, but otherwise healthy; a loud bellows-sound in the spaces above the clavicles on each side. Percussion is very clear in the upper and anterior parts of the chest, but inferiorly it is dull on both sides: it is dull for a very great extent in the cardiac region. Pulse very weak, rather quick, numbering 104. Pain in the region of the liver, which can be felt much enlarged and protruding beyond the cartilages of the ribs: the enlargement of the liver is not felt by pressure with the whole flat of the hand, but is very distinct by placing the ends of one or two fingers on the abdomen, and depressing them quickly, but not forcibly—the edge of the viscus is thus very distinctly felt. There is ascites—fluctuation being very distinct. The legs are much swelled by effusion; urine scanty and albuminous; extremities cold.

17th. In the morning he appeared as usual, was sitting up in bed and talking, and suddenly fell dead.

Post Mortem Examination six Hours after Death.—The face, lips, and ears, had become very livid, though they were not so at the time of death. In cutting the skin over the sternum, a considerable quantity of venous blood flowed out: there was effusion into the pleura, and adhesion on the left side. The lungs were of a dark colour externally. It seemed as if the pulmonary

structure was dark, and surrounded by a lighter cellular tissue, forming polygonal boundaries to it. The lungs were also emphysematous, at the edges especially, and in one or two places there were large blebs of air under the pleura. There was great congestion in the lungs, and great effusion into the bronchi, if not also œdema. The bronchial membrane was not examined. In the lower lobes the lungs appeared solidified—they did not collapse at all when the chest was opened. The pericardium contained some ounces of fluid. The heart was seen of an enormous size, lying transversely almost in the chest: the parts seen consisted of the right auricle and right ventricle—the left ventricle being concealed by the right. The point of junction of the right auricle and right ventricle had a contracted appearance, from the enormous dilatation of these two cavities, so that it looked almost as if there were two hearts joined at this point. The right auricle was of an enormous size (looking larger than the ventricle when in health), and of a dark blue colour: the coronary vessels appeared much distended. On opening the left ventricle, it was found moderately dilated. Dr. Carswell, who has since seen it, thinks its walls about the healthy thickness: the aortic opening, and also the arch, is very narrow, embracing the index finger with considerable tightness. The sigmoid valve was thickened and opaque. The mitral valve was very much ossified (so as to cause a hard projection, which could be felt on the external surface of the heart); opaque and thickened. The ossific matter was on the auricular side of the valve: where it was best seen it appeared to be deposited under the lining membrane, at the base of the valve, so as quite to cause a tumour over one part of this; the lining membrane was destroyed, so as to expose the bare surface of the bone: other parts were still covered by the membrane. On passing the finger through the valve from the auricle, the orifice was found much contracted (the bases of the valves being glued together); so that the point of the fore-finger touched the valves all round. The left auricle was much dilated and hypertrophied; its lining membrane was opaque and thickened; the sigmoid valves of the pulmonary artery were healthy; the pulmonary artery itself was dilated, admitting two fingers with ease; the right auricle was enormously dilated, and its walls very thick; the tricuspid valves opaque and thickened; the opening from the right auricle into the right ventricle much too large—it was a circle of full two inches in diameter. On laying open the right cavities of the heart, the tricuspid valves appeared to be much too small to close the auriculo-ventricular opening. The cavity of the right ventricle was much dilated, but its walls hardly thicker, if at all, than natural. There was very marked dila-

tation, forming a sort of pouch in the left superior corner of the ventricle.

Abdomen.—There was considerable effusion into the peritonæum: the liver was moderately enlarged, of a dark colour, and uncommonly hard; on cutting into it, as much venous blood rushed out, and as suddenly as though the vena cava had been cut, and it continued to pour out an enormous quantity of blood: it still, however, remained hard after all the blood that could be squeezed out. The gall-bladder was flaccid and pale. The spleen was not enlarged, but excessively hard. The kidneys small, pale, and of a stony hardness; so that when cut in two the thumb could not be forced into their structure. Some urine was taken from the bladder, and found to be aluminous. The stomach and intestines were not examined.

In making some remarks on this case, Dr. Elliotson said that it was very common, when the left ventricle was much hypertrophied, for the heart to lie across the chest. This, however, was a case of hypertrophy of the right ventricle—a very rare affection, and the first of the kind he had ever seen. With regard to the stethoscopic signs—the great impulse, and the extent over which it was perceived, were both explicable by the great hypertrophy and dilatation. The bellows sound might have arisen from either of the auriculo-ventricular valves: perhaps it is probable that the right was one source of it, and that the bellows sound heard in the neck extended from that point. It is rather remarkable there was no morbid second sound. Was it from the transverse position of the ventricle not allowing the blood to enter from the auricle with any degree of force, aided perhaps by the degree of contraction of the mitral valve? The subcrepitant rattle may be accounted for by the œdema and emphysema.

—o—

Case of Simple Fever, protracted by Irritation of the Bowels, and attended by Relapse. By Dr. Bright.

HENRY GRANT, aged 14, was admitted, under my care, August 12, 1835, on the 14th day of fever. He stated, that he was attacked with headach, shivering, and pain in his back, while at work; and the symptoms he described were, in all respects, those of a simple continued fever. At the time of admission, he was greatly oppressed with symptoms of acute fever: skin very hot, and covered with miliary eruption: pulse 130, feeble, but sharp. He said he had no headach, but had a tendency to wander. His bowels were relaxed, and there was some tension of the abdomen: tongue dry, brownish in the centre, white at the edges; no cough.

Radatur caput, et applicetur Embrocatio communis.—Habeat Sodæ Carbonatis, gr. x. ex Julepo Menthæ, sextâ quâque horâ.

13. Aspect improved; tongue moister, and less furred; skin pungently hot: pulse 120. He has not the least cough, nor any pulmonary symptom. Three watery yellow stools, sinking to the bottom of the vessel.

Adde Vini Opii m. iij. singulis dosibus Misturæ.—Applicetur Cataplasma Lini ampl. abdomini.—Injic. Enema Amyli c Syrupi Papav. alb. $\frac{3}{4}$ ss. horâ somni, urgente diarrhœa.

14. Pulse 108: abdomen less tender; motions very loose and gritty, but only two in number.

Rep. Medicamenta.

15. Pulse 92: skin hot: one loose stool of the same character.

Rep. Medicamenta.

17. Pulse 96: skin hot: bowels open as before.

Rep. Medicamenta.

Aug. 19. It appears that the injection has been omitted the last two or three nights.

Injic. Enema Amyli c Syrupi Papav. alb. $\frac{3}{4}$ iij. omni nocte.

20. Dejections still very loose; but a portion of the fæces has changed its character, and floats on the surface. Pulse 92: skin less hot: tongue gradually cleaning.

21. A slight feculent motion, with some tenesmus. Pulse 80, rather weak: skin temperate. He has been sick, after taking nourishment.

Habeat Sodæ Carbonat. gr. x. Spir. Lavend. comp. $\frac{3}{4}$ ss. ex Julepo Menthæ, sextâ quâque horâ.—Omitt. Enema.

22. Motions to-day nearly natural. He is better in all respects.

Rep. Medicamenta.

24. Motions not quite so healthy.

28. Omitt. Cataplasma Lini. Repetantur alia Medicamenta.

Sept. 4. Habeat Infus. Carsearillæ c Sodæ Carbonat. gr. xv. ter die.

He now appeared to be quite convalescent; and, as he expressed a great desire for animal food, a small quantity was allowed.

18. He has suffered a relapse: bowels relaxed: the dejections not natural: skin hot: pulse 120: tongue furred: some cough.

Hydrarg. c Cretâ, gr. iij. statim.—Sodæ Carbonat. gr. x. c Vini Opii, m. iij. ex Julepo Menthæ, sextâ quâque horâ.—Low diet.

19. Applicetur Cataplasma Lini abdomini.—Hydrarg. c Cretâ, gr. ij. horâ somni.—Rep. Mistura.

22. The irregular and unnatural state of the bowels remains.

Hydrarg. c Cretâ, gr. ij. Pulv. Ipecac. comp. gr. iij. horâ somni.—Rep. Mistura.

28. He has improved decidedly; and his febrile symptoms are gradually diminishing; but he complains of a pain and tenderness in the left iliac region.

Applicetur Emplast. Cantharidis parti abdomini dolenti. Habeat Liquoris Calcis

$\frac{3}{4}$ iv. quotidie c. Lacte.—Omitt. alia omnia.

He was kept entirely in bed, and strictly upon a mild milk diet, taking Liquor Calcis with his milk, till the 19th of October; during which period he took two doses of three grains of the hydrargyrum c. cretâ, each followed by two drachms of castor-oil. —His motions having now gradually acquired a healthy appearance, he was allowed two eggs, and some beef tea, daily; and on the 30th he left off all remedies, but continued in the hospital a week longer, to protect him from the danger of relapse; and left it at that time, full of flesh, and healthy in his appearance.—*Guy's Hospital Reports.*

—o—

HISTORY OF MEDICINE IN CHINA.

(Continued from page 768.)

"JUST as Choo-foo-tsze, an eminent Chinese philosopher, (considered second only to Confucius), taught six hundred years ago, that there belonged to plants the distinction of sex; and any poor Chinese gardener will tell you, that this is a male plant, because it bears no seed; and that is a female, because it does bear children, (as their root for seed is); yet neither the philosophers, nor the gardeners of China seem to have followed up these hints, with an experimental scrutiny, to ascertain in what that sexual distinction consisted.

"8. So neither their genius, nor their doing, have prompted them to dissect carefully the bodies of the dead for the benefit of the living; and they remain satisfied with the fact of the blood's circulation without endeavouring to explain it.

"9. Although they teach that the blood goes round as in a circle which has no beginning nor any end, yet they choose to denominate what they call Tsun-k'ow, the inch mouth; i. e. that part of the wrist where they place the fore-finger in feeling the pulse, the head-quarters of the blood, or in their style, that part where the court is held, and a report made by the pulse of all that is going on in the little world, *man*; the most distant region of which microcosm they place in the foot.

"10. The Shoo-king, compiled by Confucius, mentions Woo-hên, as skilled in the cure of diseases about 3000 years ago. The next names of eminence in this department, are Tsang-kung, and his pupil, Pên-tsoo, otherwise called (Loo-e) Doctor of Loo, who lived about 2100 years ago. During the civil wars of China, the state of society however afflictive to humanity, was probably favourable to discovery in the art of medicine, and one in which practitioners are of unusual importance, a circumstance that has gained a medical man in China the appellation of Kwo-show, "the nation's arm," meaning, that by his art he saves persons from death.

" 11. The middle of the 3rd century was in China a period of civil war, and great slaughter of human beings. It was then the, now deified, physician Hwa-to lived, and to him is attributed great skill in the use of the knife. He is said to have laid bare and scraped the bone of the arm of the deified hero Kwan-foo-tsze, and saved him from the effects of a poisoned arrow which entered his arm.

" 12. He removed the eye-ball of a king's child, cut away the diseased part, and replaced the eye-ball. It was Hwa-to who first discovered the present mode of gelding swine and fowls in China. Tsaon-tsaou, who is by some Europeans called the Bonaparte of that age in China, ordered the doctor to be decapitated (the books say), because he refused to attend on the general's wife; but, popular tradition says, because he proposed to trepan the general's skull, and cure him of some affection of the brain.

" 13. In consequence of Hwa-to's murder his wife burnt all his manuscripts; and one that he offered to the jailor, called 'the green bag recipe, able to bring the dead to life,'—containing many important secrets, being, from fear, refused, he burnt it before his death.

" 14. Shun-yu-e, a doctor of some note, lived about this time.

" 15. In the fourth century, Wang-shuh-ho was chiefly famous for his work on the pulse, an epitome of which is given in Du Halde's China.

" 16. In the sixth century Chin-kwei lived, who is said to have cut into the abdomen, removed diseased viscera, stitched up the part again, and healed the patient in a month's time. He gave an opiate to the patient which rendered him insensible before he began the operation; the opiate is called Ma-fuh-san, which seems to express that it was in the form of a powder.

" 17. There was one man of eminence, called Heu-yin-sung, who rather undervalued the doctrine of the pulse, and said, he could do without it. It was he who being advised to write a book, said, 'words cannot communicate my art.'

" 18. The above mentioned are a few of the desultory names of eminence connected with medicine in China. There are four persons still more eminent as writers, and who are well known by the epithet Sze-takea, 'the four great masters,' or leaders of separate schools, and authors of distinct systems. From the first of them to the last embraced a period of twelve centuries.

" 19. The first is King-chung-chang. He lived during the How-han, A.D. 220, and was a native of Nan-yang.

" 20. The next is Lew-chow-chin. He lived under the Sung Dynasty, A.D. 1200.

" 21. The third is Le-tung-hwan, who lived under the first Tartar Dynasty, A.D. 1300; and the last is,

" 22. Choo-tan-ke, a native of Che-keang

province, who lived during the late China Dynasty Ming, A.D. 1500.

" The first named is considered, 'The father of physic;' he left numerous writings which are still much read.

" The Chinese commence their theory by maintaining that man is a Seaou-teen-te, a little heaven and earth—a world in himself—an universe in miniature—a microcosm. With respect to the greater universe, viz. the system of nature, as it appears in celestial and terrestrial phenomena, the Chinese teach, that there is an eternal and necessarily existing power, or principle of order, which they call Tae-keih, and which may be translated by an indefinite and vague expression, such as—'the eternal,' or 'infinite principle.'

" This eternal principle, in their view, is merely the first link of the great material chain;—it is not a being distinct from the universe, nor is it endued with any moral perfections.

" They represent this first cause, this first link of the chain, by a circle, or zero.

" But, as they find it difficult to account (from what they see in nature), for all the appearances which present themselves, on the supposition of a simple homogeneous body, acting on itself, they suppose that, when the present system of nature assumed the form it now possesses, the one eternal principle was divided, and became a Dual Power, or two powers, called, in their language, Yin and Yang, and which is represented by a figure of a circle divided in two, by a waving line across the centre.

" This figure is very commonly seen as a sort of sacred ornament on various occasions among the Chinese.

" From all that I can recollect of the original import of the words, Yin and Yang, I am inclined to translate the word Yin, by calling it a Vis Inertia, and the Yang, a Vis Mobile; and in my further disquisitions on this most ancient theory, I shall, instead of the original terms, which recall no associations to the mind of an English reader, employ the terms by which I have translated them.

" The Vis Inertia, the Chinese consider to be of the feminine gender, and attribute to it darkness, weakness; passive, and inferior qualities.

" The Vis Mobile, they consider to be of the masculine gender, and attribute to it light, strength; active, and superior qualities.

" To one or other of the Dual Powers, viz. the Vis Inertia, or the Vis Mobile, all existences in the universe (and, by the way, all numbers), belong.

" However, the Dual numbers of Pythagoras, and the infinitely changing series of Chinese Diagrams, called Pakwa, are not now our subject, and I therefore pass them over, and return to the Dual Powers.

" On the regular action of these two powers reciprocally, the order and harmony of the universe, both naturally and morally

depends. Excess or defect in either power, introduces disorder and confusion into the system of nature, and the affairs of mankind.

"Thus far of the Dual Powers on the grand scale of universal existence; but every individual human body is a world in itself—a microcosm; and although, in nature generally, woman takes her place amongst the dark and weak—the *Vis Inertia*.—and man is classed with light and strength—the *Vis Mobile*;—yet in each animal body, whether male or female, the Dual Powers exist; and every part of the body is ascertained to belong either to the *Vis Inertia*, or the *Vis Mobile*.

"A due reciprocal action of these on each other, preserves the harmony of the system, which is health; excessive or defective action in either power, causes disorder or disease; and high degrees of excess or defect cause death.

"The object, therefore, of Chinese physic is, to preserve in due strength and exercise the *Vis Inertia* and the *Vis Mobile*: that the first may offer a competent resistance, and the latter may not destroy by acting with undue force. Or (according to the phraseology of the celebrated, but unfortunate and unhappy Brown), 'that the fire of human life may not go out for want of fuel; nor the combustion be too vehement and too soon terminated by having an excessive supply.'

"Such, gentlemen, is an outline, I believe, tolerably accurate, of the fundamental principles of Chinese philosophy and medicine, which system, they say, was taught in the antediluvian age, and has maintained its ground, in this most singular country, ever since.

"The doctrine of a *Vis Inertia*, and a *Vis Mobile*, may appear to some, at first glance, the same as the matter and motion of *Asclepiades*; but, I am inclined to think, the theory is different.

"*Of the Affinities of Dead and Living Matter*.—As in the system of the universe, Europeans believe that the planets are endowed by their Maker with certain attractions; and as in minute particles of dead matter, there are affinities of adhesion, cohesion, and repulsion; so the Chinese maintain that in animated matter there exists certain affinities and repulsions in reference to all nutriment or medicine taken into the stomach; for example, mercury will affect the liver; and they say, injure the generative powers. Opium affects the heart and its functions.'

"I would ask, by the way, does this doctrine resemble the attractions, repulsions, and affinities of *Hippocrates*?

"However that may be, with the Chinese, the existence of the above named Dual Powers, of these affinities and correspondence, is received as an axiom in all their theories of physic.

"Natural bodies, or the elements of mat-

ter, are divided by them into five classes, viz.: metal, water, wood, fire, earth; and these five elements produce and destroy each other in a perpetually revolving circle; thus metal produces water; water, wood; wood, fire; fire, earth; and earth, metal. And having thus gone round the circle, the same operation recommences, and goes round ad infinitum.

"But, in nature, destruction is going on as well as production: thus metal destroys wood: wood (or vegetation) destroys (or impoverishes) earth; earth destroys water—water, fire, and fire, metal.

"And thus it is that the system of nature is perpetually going the round of production and destruction. No substance is annihilated; it is its form only which is destroyed; it rises again in some other; it is corrupted, only to be again generated. The disposition to generate, or corrupt, to produce or destroy, reciprocally, is chiefly referred to in medicine.

"The viscera of an animal body, are divided into five classes, or as *Du Halde* calls them, 'noble parts'—the liver, heart, lungs, kidneys, and spleen—the latter, I think, sometimes includes the pancreas and stomach.

"The *Materia Medica* are all classed under one or other of the five elements; those that belong to

"*Moh joh kan*, wood, have an influence on the liver,

"*Ho joh sin*, caloric, on the heart,

"*Too joh phe*, earth, on the spleen,

"*Kin joh fie*, metal, on the lungs, and

"*Shwuy joh shin*, water, on the kidneys.

"Again, tastes are divided into five, viz. sour, sweet, bitter, acid, salt.

"The five tastes have certain affinities to the five elements, and to the five viscera; the affinities are these:—

"Sour, to wood and the liver,

"Sweet, to earth and the spleen,

"Bitter, to heat and the heart,

"Acrid, to metal and the lungs,

"Salt, to water and the kidneys.

"Farther, as *Dr. Herschel* has proved that the rays of light differ in their degrees of heat, and that the red ray possesses the greatest heating power; and as it is light which gives colour—so the Chinese divide their colours into five; and refer red to heat and to the heart.

"The five colours are these:—*tsing*, *hwang*, *chih*, *pih*, *hib*. Green, yellow, red, white, and black, and the affinities are these:—

"*Tsing shoh muh*, *juh kan*,

"*Ch'eh shoh ho*, *juh sin*,

"*Hwang shoh 'too*, *juh phe*,

"*Pih shoh kin*, *juh fie*,

"*Hih shoh shwuy*, *juh shin*.

"Green is related to wood, and affects the liver.

"Red to heat, and affects the heart,

"Yellow to earth, and affects the spleen,

"White to metal, and affects the lungs,

"Black to water, and affects the kidneys.

"Thus the Chinese divide natural bodies; the viscera, tastes, and colours; and such as I have stated, is their belief of the affinities, attractions, and repulsions, or in one word, the correspondences in nature.

"The system is possessed of a beautiful symmetry; but I fear it wants, (what is indispensable to all science), the basis of truth. How do they prove what they say?

"Perhaps some of the ideas are not without support from analogy; how they correspond or disagree with theories, formed or promulgated in the western world, in ancient and modern times, I shall leave to our worthy president to point out, as his professional pursuits, for many years, in different parts of the world, and his extensive reading, eminently fit him for the task.

"I have promised to state the different views of the four great masters of the healing art in China, whom I mentioned to you at our last meeting; but that I must defer till a subsequent opportunity.

"*Rule of Medical Practice.*—I promised, on a former occasion, to lay before you, gentlemen, a view of the different systems of the four great masters of Chinese medicine; that promise I am unable to keep; for I cannot command time enough to read Chinese medical writers and inform myself fully on the subject.

"Their differences are thus briefly stated in the first volume of a work, entitled *E tsung peih tuh*, 'The best authorities in medicine, very necessary to be read.'

"First. The first writer, Chang-chung-king, in whose great and original work on fever, the Imperial College of Physicians say, not a single sentence is found taken from any more ancient authority, antecedent to his own time, (which was sixteen centuries ago)—was remarkably decided in his practice; and all who take him as their model 'err in giving immoderately large doses of medicine.' he was the first publisher of prescriptions in China; but his prescriptions direct taels weight (or ten ounces) of different ingredients to be taken, where the men of our day can only bear tseen, or single ounces.

"From this circumstance, one writer infers, that the human constitution is much weakened in China, since the time of Chang-chung-king, who is, I think, from the little I have read, considered their first and greatest physician.

"About a thousand years elapsed before their second great master appeared; viz. Lew-show-chin, and all who followed his system 'erred in an immoderate use of bitter and refrigerating remedies.'

"In the thirteenth century, Le-tung-hwan the third great leader of the Chinese school of medicine, directed the fashion to an extreme degree of stimulating, or as the Chinese expresses it, 'elevating and strengthening remedies.'

"His system, two centuries afterwards, Choo-tan-ke opposed, and went to an extreme in cleansing, or 'attenuating, and lowering the powers of nature.'

"I have seen a brief memoir of the third named writer, Le-tung-hwan, which states, that he was thoroughly versed in all the learning of his age and country, and was remarkable for a retentive memory. He attached himself to an eminent practitioner, and procured from him all that his long experience had amassed.

"Like many eminent men, he seems to have grown proud and morose; for, unless in difficult and dangerous cases, he showed great displeasure when called on for his assistance.

"I once before noticed to you, incidentally, that the Chinese rule given to physicians to ascertain a patient's complaint, is expressed in four words:—

"Wang, look.

"Wan, listen.

"Wan, ask.

"Tsee, feel,

"What method can be more rational? And with such a comprehensive and concise precept before our eyes, what can be more unfair than the representations of those Europeans who say, the Chinese pretend to know every thing concerning a complaint by feeling the pulse, and asking questions by stealth?

"In the work entitled *Sze-tsee-san-shoo*, from which I have taken the above precept, it is laid down as the only regular practice to proceed thus: to inquire of the patient the probable cause of his complaint—whether from affections of the mind; from excess in eating or drinking; from irregular conduct, &c., before proceeding to feel his pulse. The order, however, is, that of the precept given above—first look at the patient's countenance, next mark the tone of his voice; then ask him all about his *Ping-yuen*, the probable source or origin of his malady—and finally feel his pulse.

"The same writer, however, mentions, that there are foolish people in China, who want to try the doctor's skill, and will not tell him the truth. He reprobates the absurd practice, and to discountenance it quoted the saying of an eminent statesman, *Soo-tung-po*, who declared, that when he called a doctor, his object was to have his bodily complaints cured; and he gave the physician every possible aid, by telling all that he knew of the cause and progress of his disorder. In the same work, next follow various rules to judge of diseases by the patient's look and voice, as well as by his pulse; and I dare say, many of the remarks will agree with the experience of all ages and countries.

"I cannot now, however, enter upon an account of them."

(To be continued.)

Neuralgia of the Splenic Plexus.

N—, aged 48, married, and the mother of several children, habitually constipated, and suffering from disordered menstruation, one morning felt a pain in the left hypochondrium, as if in consequence of an exertion. The pain extended under the false ribs, from the vertebral column, and was felt to the extent of four fingers. It returned at intervals, was very severe, piercing, and burning; the left hypochondrium and all the superior portion of the abdomen were tumefied with gas. The pain seemed afterwards to fix itself more particularly in the renal region, accompanied with vomiting and a flow of high-coloured urine, voided with pain. But it very soon returned to its former place; then, moving again, it became located in the splenic region; it then took a more decidedly intermittent type. The fits came on every night, from one o'clock to six or seven in the morning. The patient had spasms in the hypochondrium, which was accompanied with a sensation of anxiety, but was not augmented by pressure. The painful part, which was slightly swelled, was of a higher temperature than the rest of the body; the face was sallow and clay-coloured; sometimes there was vomiting of a watery mucous matter, without any relief during the fits; there was no fever, nor was there any sign of gastric derangement; but complete exemption from apyrexia, except slight sensibility in the affected region. In this case also, sulphate of quinine produced the best results, administered in doses of two grains every two hours, as soon as the intermittent symptoms were clearly declared; it arrested the fit from the first day. The second night, the pain being again felt, the quinine was given the next day, from one o'clock to eight in the evening, in two grain doses every second hour, and the paroxysm did not again appear. The health and strength of the patient, which had been remarkably injured, were soon quite re-established.—*Gazette Medicale.*

Poisoning by Colchicum.

A woman, twenty-five years of age, on the second of June, 1835, after a very slight repast, drank, for the purpose of destroying herself, a glass of vinous tincture of colchicum, which had been prepared about two months previously, and which was composed of two bulbs of colchicum dried, and powdered to half a pint of white wine and an equal quantity of brandy. She drank about five ounces of the liquid, and suffered excruciating pain in the epigastric region. Half an hour afterwards two pints of milk were given her; and a physician who was called administered two grains of tartar emetic,

which caused copious and long continued vomiting.

An hour after midnight, M. Caffa was sent for; he found the patient generally cold; very great paleness; no rigidity of the limbs; decubitus on the back; no convulsive movements; epigastrium painful, especially on pressure; constriction of the chest; difficulty of respiration. The abdominal parietes seemed of a higher temperature than the rest of the body; the pupils were not dilated; the tongue was cold; the pulse thready and very slow; there had not been any alvine defection. She had intense thirst; and her intellects remained quite perfect. There were severe cramps exclusively confined to the two plantar regions. She alternately uttered plaintive cries, and sunk into a state of profound prostration. She had frequent vomitings of an inodorous and colourless liquid in very small quantities. Sinapisms were applied to the soles of the feet.

On the morning of the third of June the pulse had recovered in strength and frequency; the cramps were less painful. Ten leeches were applied to the epigastrium; but the patient continued to sink, and died at five o'clock in the evening.

An autopsy was made ninety-two hours after death, but nothing interesting could be learned, as the digestive tube had been previously removed to the Palais de Justice.

Carlsbad Waters.

The existence of small quantities of iodine has been detected in these waters by M. Neutwich of Carlsbad.

Coroners' Inquests—Fees to Medical Practitioners.

We have received a letter from Mr. James Baker, which he is about to forward to the profession, requesting their co-operation to obtain the support of their Parliamentary friends in favour of remunerating Medical Practitioners for their service at inquests. We are happy to state that Mr. Warburton, Mr. Hume, Mr. D. Whittle Harvey, and other Members of Parliament, have promised to support the measure.

BOOK.

Case of Loss of the Uterus and its Appendages soon after Delivery, together with Remarks on the Propriety of Removing that Organ in Cases of Inversion or Scirrhus. By John C. Cooke, M.R.C.S.E. pp. 21. London and Coventry.

All communications and books for review are to be addressed (post paid) to Dr. Ryan, 4, Great Queen Street, St. James's Park, Westminster, or to G. Henderson, 2, Old Bailey, Ludgate Hill.

INDEX

TO

VOL. VIII.

A.

- ABDOMINAL phlegmasia, character of, 705; uneasiness, 736
Absence of the anus, 594
Absorption of the crystalline lens, 634
Academy of Medicine—reproduction of leeches, 441
Aconitum napellus in rheumatism, 663
Acute articular rheumatism, case of, cured by tartarized antimony, 799
Advice to medical students, 284
Æthusa cynapium, 545
Africa, intermittent fevers in, 125
Aldis's introduction to medical practice—review of, 460
Alexander's, Dr., reply to the Medical Gazette, 92, 112
Alterations in the milk, 275
Amputation of the arm, 655; of the breast, 469; of the neck of the uterus, 657
Amygdalis communis, 53
Anagallis arvensis, 222
Anasarca, case of, 670; case of acute, successfully treated, 380; following scarlatina, 595
Anatomy alike indispensable to physicians and surgeons, 25
—— Physiology and pathology of the skin, 710
Anemia, cases of, by Dr. Geddings, 401; cured by iron, 660; clinical remarks on, by Dr. Elliotson, 701
Angina pectoris, 593; tonsillaris, 530
Annual Report of the Society of Apothecaries, 128
Anomalous affections of the head, 732
Antimony, tartarized, explanation of the action of, 735
Anus, artificial, new instrument for treatment of, 411, 503
Apparent death, case of, 736
Asphyxia of infants in pedal presentations, 512
Asthma, sulphuret of potash in, 512
Atmospheric heat, on the therapeutic influence of, 441

B.

- BALZAC'S, M., Physiology of Marriage, review of, 579
Barks, the, employed in intermittent fever, 507
Biliary calculus of great size, case of, by Dr. Amond, 351
Births, influence of day and night on, 594

VOL. VIII.

- Blizard, William, Sir, death of, 192
Bottomley's, Mr., Letter to Lord John Russell, on the Poor Law Commissioners' Report, 126
British Association for the Advancement of Science, 86, 128; proceedings of, 187; Medical Almanac, review of, 696
Bronchocele of Gôitre of Nipal, 364

C.

- CÆSARIAN operation fourteen months after conception, 32, 511
Caldwell, Dr., on a remarkable case of gall-stones connected with delirium tremens, 437
Cantharides and cantharidin, 657
Capsicum in various diseases, by Dr. Turnbull, 438
Carlsbad waters, 632
Cataract, 448; essay on the history of, 768, 801
Caustic of chloride of gold in cancerous affections, 55
Cerebral fever, 449
Chair of Baron Dupuytren, 416
Charter to the London University, by J. Epps, M.D., 722
Chest, disease of, simulating phthisis, 820
China, history of medicine in, 766, 828
Cholera in the south of France, 123; in Italy, 657; cases of, by J. C. Atkinson, Esq., 64
Chronic enteritis, on, by M. Broussais, 609; rheumatism, case of, 416
Crystalline lens, absorption of, 634
Christian Physician and Anthropological Magazine, review of, 249
Christ's Hospital, election of medical officer to, 409, 440, 474
Clark's Treatise on Pulmonary Consumption, review of, 17, 49
Cock's Practical Anatomy of the Head and Neck, review of, 468
Colica pictonum, case of, 147, 211
Collins, Dr., reclamation of, 759; review of Treatise on Practical Midwifery, 691
Comparative anatomy, importance of, 184
Compression in hernia, 636
Conception without coition, 400
Concretions of the heart, 699
Constipation, cases of, 59
Constitutional Irritation, Travers on, review of, 461
Contraction, permanent, of cremasters, 121
Convulsus Jalapa, 285

Cooper, Mr., on medullary sarcoma, 702
Coroners' inquests, fees to medical men, 832
Cox's New London Dispensatory, review of, 377

Creosote in gastrodynia, 384, 503

Croup without cough, 396

D.

DARTURA stramonium, 704

Davis on Diseases of the Heart and Lungs, review of, 16

Davy's Experimental Guide to Chemistry, review of, 469

Death caused by Morrison's pills, 602; post mortem appearances in case of, 605; of the Portsmouth Cholera Gazette, 58

Dechambre, M., on a case simulating rheumatism, 444

Defence of the New Poor Law Bill, by J. Dyer, Esq., 439

Degradation of the profession—state of our medical literature, 439

Deficiency of "esprit du corps" in the medical profession, 250

Delirium, sedative in, 672

Denman's Obstetrician's Vade Mecum, review of, 622

Dental exostosis, 592

Dentists' art described, 554

Dermott, Mr., on the medical profession as it is, and as it ought to be, 92, 159, 189, 315

Destruction of sequestra by sulphuric acid, 593

Diabetes, case of, 416; cured by tincture of cantharides, 661

Diarrhœa, pathology and treatment of, 744

Digitalis purpurea, 608

Dilatation of the heart, remarkable case of, 826

Diseases of the genito-urinary organs, 13; 61, 76, 142, 127, 240, 269.

Dispensaries, the gratuitous humbug, 88; and workhouses, gratuitous attendance of, 221; for piles, fistula, &c., 602

Dreams, dependance of on bodily sensations, 127

Drunkenness, its physiological and pathological effects on herbivorous and carnivorous animals, 95

Dublin College of Surgeons—injustice, jobbing, and impolitic legislation of, 728

Dupuytren's clinics—hernia, 317; sarcocele, 469; hæmorrhoids, 724; memoir of, 719, 753

Dysentery, 634; pathology and treatment of, 744

Dystocia, extraordinary case of, 531

E.

EASTERN Medical Association, 320

Eczema, 668

Edinburgh University, graduation in medicine at the, 96

Eels in Artesian wells, 564

Election of medical officer to Christ's Hospital, 409, 440, 474; in the royal hospitals, 474

Elliotson, Dr., on the use of the nitrate of silver in inflammation of the subcutaneous cellular tissue, 222; on cases of rheumatism, 573; scabies complicated with impetigo, 575; on gout, 581; gastrodynia cured by creosote, 582; supphrenitis, 583; hepatitis, 58; anemia, 701

Encephaloid tumour mistaken for a wen, 380

English surgery, French opinions of, 57

Enlargement of the prostate gland, 269

Enteritic inflammation, progress of upwards and downwards, 353

Entry of a junior medical practitioner into the world, 22; difficulties to encounter, 22; what to avoid, 24

Epidemic fever, accompanied with tetanic spasms, 318; in Ireland, from 1798 to 1835, by Dr. Stoker, 422, 455, 485, 518, 550, 585

Episioraphy, new operation to infibulate the vulva, 394

Epps, Dr., on the London University charter, 72

Ergot of rye, poisoning from, 660

Erysipelas-gangrenosus, fatal case of, 29; cases of, treated with nitrate of silver, 476; cases of, 537, 796; Langley, Mr., on, 664

Extraordinary birth in Green Lizard Street 26

F.

FATE of Morey, 562

Febrifuge wine, 274

Fevers, intermittent, in Africa, 125; reasons for abolishing the term, 417; cases of simple, protracted by irritation, and attended, with relapse, 827

Fistula in perineo, 28

Fletcher's, Dr., Lectures on the Institutions of Medicine, 97, 129, 161, 193, 225, 262, 289; remarks on the trial of Robert Reid, 65, 103, 165; Physiology, review of, 756

Forbes' Medical Biography, review of, 218

Foreign Medicine, 32, 55, 95, 124, 144, 181, 207, 236, 274, 350, 394, 440, 469, 499, 530, 562, 592, 632, 689, 753

Fracture of the spine, 508; of the olecranon, 655; of the upper part of the neck of the thigh bone—treatment of, 637

French hospital statistics, 185; Medical Almanac, 800; opinions of English surgery, 57

Frossient's, M., Physical and Moral Education of children, review of, 759

Fungus Hæmatodes, 659

G.

GALLSTONES, remarkable case of, 437

Gama M., honour conferred on, 480

Gastrodynia cured by creosote, 384; on creosote in, 582

Gastro-enteritis, prognosis of, 481; treatment of, 513, 545

Gastritis, general chronic, 577; prognosis and treatment of, 641

Generation, universal code of, 29, 46, 266
 German Medical Institutions, 398
 Genito-urinary organs, diseases of, 13
 Gintrac Dr., on angina-pectoris, 593
 Guette, M., on the influence of day and night on births, 594
 Gold, cyanuret of, as an emmenagogue, 533
 Gonorrhœal rheumatism, 637
 Gonorrhœa, turpentine in, 221
 Gout, new remedy for, 581
 Graduations in medicine at the University of Edinburgh, 96; in August, 1835, 726
 Gregory's Translation of Magendie's Formulary, review of, 377
 Guaiaco, preparations of, 95
 Gully's, Dr., select lectures from Broussais' course on general pathology, 1, 33, 167, 135, 172, 202, 262, 299, 321, 353, 365, 417, 449, 481, 513, 545, 577, 609, 641, 673, 705
 Guthrie's, Mr., case of malignant disease of the antrum, operation, 445
 Guyot, Dr., on the therapeutic influence of atmospheric heat, 441
 Guy's Hospital Reports, review of, 792

H.

HÆMORRHAGE, arterial and venous, Malgaigne on, 118
 Hæmoptosy, and pulmonary tubercles, relation between, 380
 Hæmorrhoidal tumours, ointment for, 379
 Hæmorrhoids, Dupuytren on, 724
 Hahnemann, naturalization of, in France, 480
 Hancock on the climate of British Guiana, 465
 Heads and tails of the profession, 379
 Heat of the organs, 32
 Helleborus, 352
 Herbivorous man, 504
 Hereditary hæmorrhagic diathesis, 276
 Hernia, Dupuytren on, 317; compression in, 636
 Homœopathy, 635
 Honour conferred on M. Gama, 480
 Hospital Reports—*St. George's*.—Colica pictonum, 415; chronic rheumatism, 416; diabetes, 416; *Middlesex*.—Fistula in perineo, 28. *North London*.—Inflammation of the subcutaneous cellular tissue, use of nitrate of silver in, 222; poisoning by sulphuric acid, 284; creosote in gastrodynia, 384; lithotomy, 415, 448; erysipelas healed with nitrate of silver, 476; fracture of the spine, 588; concussion of the brain, 508; lepra syphilitica, hydriodate of potass in, 536; cases of erysipelas, 537; anasarca phlogistica, 670; hydriodate of potass in caries ossium, 671; sedatives in delirium, 672; dilatation of the heart, 226; cases of anemia, 701; medullary sarcoma, 702; treatment of stricture, 731; compound fracture of the leg, 795; erysipelas, 796. *Westminster*.—Erysipelas-gangrenosus following cupping, 29; disease of the mammary glands, 94; necropsy, 94; acute eczema impetiginoides, 121; in-

flammatory phymosis with erysipelas, 123; phagedenic, ulceration, cases of, 156; hydrophobia, 186; fracture of the parietal bone in a new born infant, 187; stricture of the urethra—calculus, 411; severe case of Pott's fracture, 413; malignant disease of the antrum, operation by Mr. Guthrie, 445; hydrocephalus, 510; caries of the atlas, 510
 Hospital at Parma, 382; at Bologna, 382; at Florence, 383; at Rome, 397; at Naples, 397
 Hydrarthrosis, acute, 662
 Hydrocephalus acutus, 510
 Hydrophobia, 157; Dr. Burne on, 186

I.

IDENTITY of grenandine and maninte, 32
 Impolicy of attending hospitals, dispensaries, and workhouses, gratuitously, 112
 Importance of comparative anatomy, 184
 Inflammation of the blood, 350
 Injustice, jobbing, and impolitic legislation of the Dublin College of Surgeons, 728
 Inquest on the boy Stanyuought—moral insanity, 219
 Insanity, medico-legal doctrines concerning, 144, 180
 Insufficient remuneration of medical practitioners, 56
 Insurance-office queries, 224; in relation to medical practitioners, 698
 Intermittent fevers—in Africa, 125; Chloride of soda in, 397; pleuro-pneumonia, 800; frontal neuralgia on one side, 800
 Internal inflammation, Broussais on, 299
 Intemperance in Great Britain and Ireland, review of, 277, 306
 Introductory lecture on the theory and practice of medicine, by Dr. Uwins, 327; to clinical surgery, by M. Velpeau, 715, 761
 Iodine in syphilis, 699
 Irregular exanthematous affection, 689
 Irritation, transmission of, as a cause of gastro-enteritis, 321
 Italian medical institutions, 381, 397
 Itch, treatment of the, 55

J.

JOHNSON, Dr., portrait of, 128
 Judd, Mr., on urethritis and syphilis, review of, 791

K.

KINGDON'S, Mr., letter to the medical profession, 471
 Koecker's Essay on Artificial Teeth, review of, 247

L.

LANGLEY, Mr., on erysipelas, 664
 Larvæ of the common fly in the skin of an infant, 566
 Lectures publication bill, 192
 Lee on Medical Institutions and Practice of France, review of, 343
 Leeches, reproduction of, 441
 Lepra syphilitica, hydriodate of potass in, 536

- Ligature, small, of arteries, who introduced it into the practice of surgery, 251
 Liston's, Mr., operations for lithotomy, 415, 448; on the treatment of stricture, 731
 Literary notices, 32
 Lithotomy, 415, 448, 564
 Liverpool Medical Benevolent Institution, 223
 Lobstein, M., on dental exostosis, 592
 London Medical Society.—Fractures of the upper part of the neck of the thigh bone, 607; treatment of, 637; gonorrhœal rheumatism, 637; protracted pregnancy, case of supposed, 797
 London Surgical Pocket Book, review of, 469
 London University, 408
 Lunatic asylums, 53
- M.
- M'ADAM, Dr., on the pathology and treatment of diarrhœa, 774; of dysentery, 774
 M'Nab's Compendium of the Ligaments, review of, 468
 Macrobin's Introduction to the Study of the Practice of Medicine, review of, 468
 Malgaigne's Manual of Operative Surgery, by Greville Jones, Esq., 115, 176, 289, 304, 506, 554, 684
 Malignant disease of the antrum, 445; sore throat, 135
 Mammary glands, disease of, case of, 94
 Mart on the Nature and Treatment of Nervous Diseases, review of, 151
 Medical profession as it is, and as it ought to be, 92, 159, 189, 315; reform bill, 120; botany, 53, 222, 235, 352, 480, 543, 608, 704, 768, 799; benevolent Institution at Liverpool, 223; students, advice to, 284; session 1834-5, 314; education, necessity of attendance on lectures, 348; institutions of Ireland, Medicus on, 436; relief of paupers—the new Poor Law Act, 505; reform association, 544; the prizes carried off by nobody, 569; attendance on the sick poor, 765
 Medico-Botanical Society, 603
 Medullary sarcoma, 602
 Meeting, great, of medical students at the Crown and Anchor, 823, 824
 Meetings of the Westminster Medical Society, 384
 Mémoir of Dupuytren, 719
 Mental alienation, influence of temperature on, 125
 Metropolitan University—the long expected jubilation of the Lizard, 697, 730, 793
 Microscopical curiosities, 274
 Middlemore, Mr., on Diseases of the Eye, review of, 792
 Midwifery, Dr. Montgomery's observations on, 477, 496
 Military and naval surgeons, 91
 Mind, state of the, during sleep, 192
 Mineral magnetism, by Dr. Schmidt, 538, 668, 794, 799
- Mode of extracting small pieces of iron from the eyes, 274
 Monomania, 144, 181, 207, 236
 Moral insanity—inquest on Stanynought, 219
 Morbid enlargement of the spermatic cord, resembling hernia, 402
 Morison's pills, death caused by, 602; post-mortem appearances in case of, 605
 Morton, Mr., on suppuration, 625
 Motiferous nerves, the, Dr. Fletcher on, 161, 193
- N.
- NATURAL philosophy arranged according to the plan of Napoleon, 512
 Naturalization of Hahnemann in France, 480
 Nervous diseases, Mr. Mart on the treatment of, review of, 151; system, some contributions to the pathology of the, by Dr. Geddings, 366; centres, on the diseases of, by M. Andral, 590
 Neuralgia of the splenic plexus, 283
 New acid—nitro-sulphuric, 276
 New arrangement for the future conduct of this Journal, 378
 New poor law act, 544; Mr. Verral on, 570, 596; letter to Lord John Russell on, 630; defence of junior practitioners, 703
 Nitrate of silver, use of, in inflammation of the sub-cutaneous cellular tissue, 222; in erysipelas, 476
- O.
- OBJECTIONS to the generally received doctrines of animal heat, 55
 Observations of M. Orfila on the tissue of dead bodies after interment, 26, 85, 180, 252, 282; on the classification, etiology, pathology, and treatment of diseases of the skin, 521, 559
 Ointment for hæmorrhoids, 379
 Oldfield, Mr., on the diseases of the natives on the banks of the Niger, 403
 Oligarchy of Lincoln's Inn, eligibles and ineligibles, 472
 Oke's, Mr., Practical Examinations, review of, 17
 One faculty, 154
 Operations performed on the teeth, Malgaigne on, 554
 Ophthalmophantome, 125
 Orfila's, M., observations on the tissue of dead bodies after interment, 26, 85, 180, 252, 282
 Osborne, Dr., on Dropsies, review of, 783
 Oxalis, 799
- P.
- PARENT of two children in Christ's Hospital, 192
 Paris and London Pharmacopœias, 480
 Pathology of nervous system, some contributions to, by Dr. Geddings, 366
 Pelvic exostosis, 393
 Peregrinations of an Irish leech, 285

Perforating ulcer of the duodenum, 351
 Peru, balsam of, in phagedena, 156
 Petition of licentiates against the College of Physicians, 146
 Phagedenic ulcerations, cases of, treated with balsam of Peru, 156
 Pharmacopœias, Paris and London, 480;
 Nosocomii Regii Glasguensis, 813
 Phelan on the Medical Charities of Ireland, review of, 388, 431, 492
 Physiology, connection of, with pathology, 779, 811
 Plague, the, 502
 Plan for breeding leeches, 768
 Poisoning by sulphuric acid, 284; by ergot of rye, 660; by colchicum, 832
 Polypus of the uterus, 657
 Poor Law, New Act, 544; Mr. Verrall on, 570, 596, 601
 Portable operating table, 731
 Portrait of Dr. Johnson, 128
 "Pott's fracture," severe cases of, 413
 Practical observations on midwifery, by Dr. Montgomery, 477, 496
 Preparations of silver in syphilis, 276
 Preston Dispensary medical officers, 572
 Prize of the Academy of Sciences, 800
 Professorship of Surgery in the University of Edinburgh, 665, 672, 763, 765
 Professor Tiedemann in London, 379
 Prostate gland, enlargement of, 269
 Protracted pregnancy, case of supposed, 797
 Provoked abortion in retroversion of the uterus, 480
 Purity of election in the Dublin Lying-in hospital, 760

Q.

QUACK testimonials, 128
 Quackery, suppression of, 280
 Quain's, Dr., Martinet's Pathology, review of, 280

R.

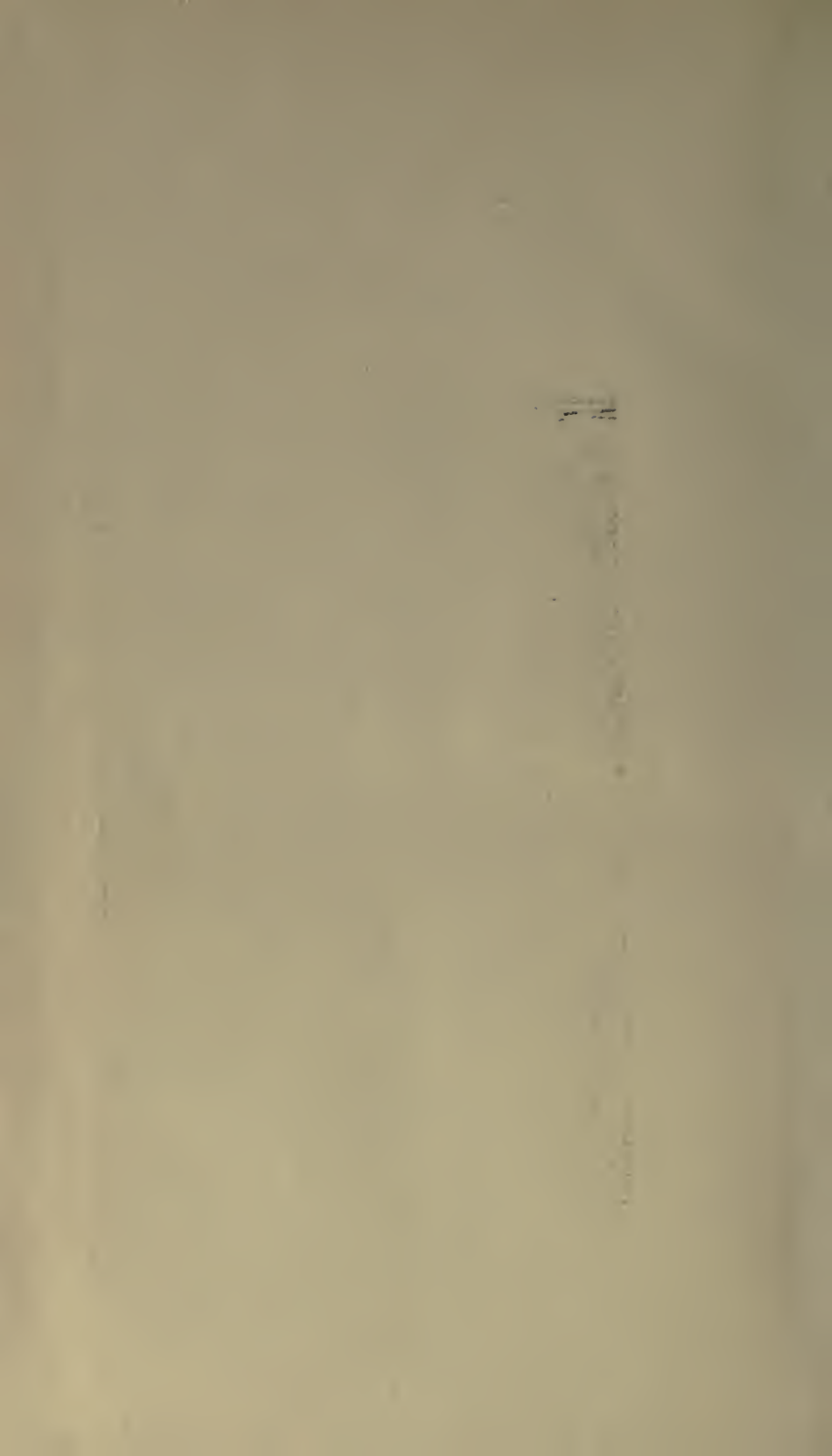
RACIBORSKI's Manual of Auscultation, review of, 119
 Reclamation of Dr. Collins, 759
 Reid's, Dr., Manual of Practical Midwifery, review of, 622
 Relation of the three kingdoms of Nature to each other, 286; between hæmoptosis and pulmonary tubercles, 380
 Relative use of fluids for the preservation of dead bodies, 96
 Renshaw's, Mr., reply to Mr. Rush, 100
 Remedy for sea-sickness, 275
 Report of Commissioners under the New Poor Law Act, review of, 336; of surgical cases, with remarks, by Mr. Smith, 402
 Reproduction of leeches, 441
 Reviews—Davis on Diseases of the Heart and Lungs, 16; Oke's Practical Examinations in Surgery and Midwifery, 17; Clark's Treatise on Pulmonary Consumption, 17, 49, 147, 211; Ryan's New Practical Formulary of Hospitals, 48; Todd's Cyclopædia of Anatomy, 84, 529; Raciborski's Manual of Auscultation, 119;

Mart on Nervous Diseases, 151; Forbes' Medical Biography, 218; Griffith on Hydrocephalus, 219; Cull on Stammering, 247; Robertson on Diseases of the Teeth, 247, 369; Koecker's Essay on Artificial Teeth, 247; Gregory's Translation of Magendie's Formulary, 248; The Christian Physician, 249; Quain's Martinet's Pathology, 280; Intemperance in Great Britain and Ireland, 277, 306; Report of Commissioners under the New Poor Law Act, 336; Phelan on the Medical Charities of Ireland, 388, 431, 492; Lee on the Medical Institutions and Practice of France, 343; Cox's New London Dispensatory and Gregory's Translation of Magendie's Formulary, 377; Toase's Tables of Botany and Materia Medica, 435; Aldis' Introduction to Medical Practice, 460; Travers on Constitutional Irritation, 461; Hancock on the Climate, Productions, and Diseases of British Guiana, 456; Cock's Practical Anatomy of the Head and Neck, 468; McNab's Compendium of the Ligaments, 468; Macrobin's Introduction to the Study of Practical Medicine, 468; Davy's Experimental Guide to Chemistry, 469; The London Surgical Pocket Book, 469; Dr. Bardsley's Introductory Address, 528; Chancellor Law's Address, 528; Gregory's Conspectus, 530; Dr. Wardrop on Blood-letting, 530; Denman's Obstetricians' Vademecum, 622; Reid's Manual of Practical Midwifery, 622; Collins' Practical Treatise on Midwifery, 691; The British Medical Almanack, 693; Fletcher's Rudiments of Physiology, 756; Thorburn's Bedside Medicine, 758; Todd's Cyclopædia of Anatomy, 758; M. Bureaud Rieofrey's Physical Education of Girls, 759; M. De Balzac's Physiology of Marriage, 759; M. Froissant's Physical and Moral Education of Infants, 759; M. Simon's Treatise on the Hygiene of Infants, 759; Osborne on Dropsies, 783; Judd on Urethritis and Syphilis, 791; Middlemore on Diseases of the Eye, 792; Guy's Hospital Reports, 792; Pharmacopœia Nosocomii Regii Glasguensis, 815
 Rheumatism, cases of, 576; case simulating, 444
 Robert Reid, remarks on the trial of, by Dr. Fletcher, 65, 103, 165
 Royal Academy of Medicine in Paris, 320
 Roznetta, Dr., on Pelvic Exostosis, 393
 Ryan's, Dr., Lectures on the Physical Education of Children from Birth to Puberty, 7, 38, 71, 198, 223, 295, 332, 358, 390, 614, 646; New Practical Formulary of Hospitals, review of, 48

S.

SARCOCELE, Dupuytren on, 469
 Scabies complicated with impetigo, 573
 Scald head, 633
 Schmidt, Dr., on mineral magnetism, 538

- Schultz, Professor, on the function of the cæcum, 427
 Sea sickness, remedies for, 275
 Sedatives in delirium, 671
 Simon's, M., Treatise on the Hygiene of Infants, review of, 759
 Sleep, remarks on, 119; state of the mind during, 192
 Slimings of the Lizard, 408
 Sketches of the Medical Profession in Paris. No. I. M. Civiale, 817
 Skin, history of writers on, 521; new classification of its diseases, 559; anatomy and pathology of, 713
 Society for the relief of the widows and orphans of medical men, 407
 Solidification of carbonic acid gas, 480
 Spirits, effects of, injected into the veins, 95
 Statistics of hospitals of Paris, 480
 Stoker, Dr., on the epidemic fevers of Ireland, 442, 455, 485, 518, 550, 585
 Stricture of the urethra, 2, 13, 61; case of, 411; treatment of, 731; of the colon, 638
Styrax officinale, 763
 Successful case of Cæsarian operation, 32
 Sulphate of quinia used in fever by the endermic method, 350; of copper in croup, 800
 Sulphuric acid, poisoning by, 284
 Suppuration, Mr. Morton on, 625; under the dura mater, case of, 653
 Suppression of quackery, 280
 Surgeons, naval and military, 91
 Surgeonship to the Richmond Hospital, Dublin, 763
 Syphilis, preparations of silver in, 276; inveterate, treated with phosphoric acid, 416
 System of medical charity, 534
- T.
- TEETH, operations performed on the, 554
 Temperature, influence of on mental alienation, 125
 Thomson, Dr. Alexander, on the minute structure of the muscular system, 124; on a new instrument for the treatment of artificial anus, 441; essay on the history of cataract, 737, 768, 801
 Thorburn's, Dr., Bedside Medicine, review of, 758
 Tiedemann, Professor, in London, 379
 Toase's, Mr., Botanical Tables, review of, 435
- Todd's, Dr., Cyclopaedia of Anatomy, review of, 756
 Torsion of arteries, 399
 Tracheotomy, 470, 567
 Transposition of the abdominal and thoracic organs, 479, 734
 Traumatic tetanus cured, 400
 Treatment of Itch, 55
 Turnbull, Dr., on capsicum in various diseases, 433
 Turpentine, use of, in gonorrhœa, 221
 Typhoid fever, 636
 Typhus fever of the old English writers, 318
- U.
- UNIVERSAL Code of Generation, 29, 46, 266
 Use of the nasal fossæ in the production of the voice, 275
 Uwin's Dr., introductory lecture on the theory and practice of medicine, 327
- V.
- VELPEAU'S, M., introductory lecture, 715, 751
 Venereal buboes, treatment of by blisters, 801
 Verral, Mr., on the New Poor Law Act, 570, 596
 Vices of conformation—of the liver, Dr. Ryan on, 295; diseases of the urinary apparatus, 333; intra-uterine and extra-uterine diseases of the respiratory organs, 358; diseases of thoracic portion of the respiratory apparatus, 390; intra-uterine and extra-uterine diseases of circulation and cerebro-spinal apparatuses, 614; diseases of organs of locomotion or osseous and muscular apparatuses, 646
- W.
- WARDROP on Blood-letting, review of, 530
 Westminster Medical Society.—Mineral magnetism, 604; post mortem appearances in a case of death from taking Morrison's pills, 605; extraordinary case of exfoliation of the cuticle, 638; structure of the colon, 638; eczema, 668; hæmoptysis, 668; mineral magnetism, 668, 820; disease of the chest simulating phthisis, 120; concretions of the heart, 699; iodine in syphilis, 699
 Western Medical Association, 667



BINDING SECT. MAY 16 1966

Author	297551	P Biological & Medical L
Title	London medical and surgical journal, n.s. 3, 1836	
DATE	NAME OF BORROWER	

University of Toronto
Library

DO NOT
REMOVE
THE
CARD
FROM
THIS
POCKET

Acme Library Card Pocket
LOWE-MARTIN CO. LIMITED

